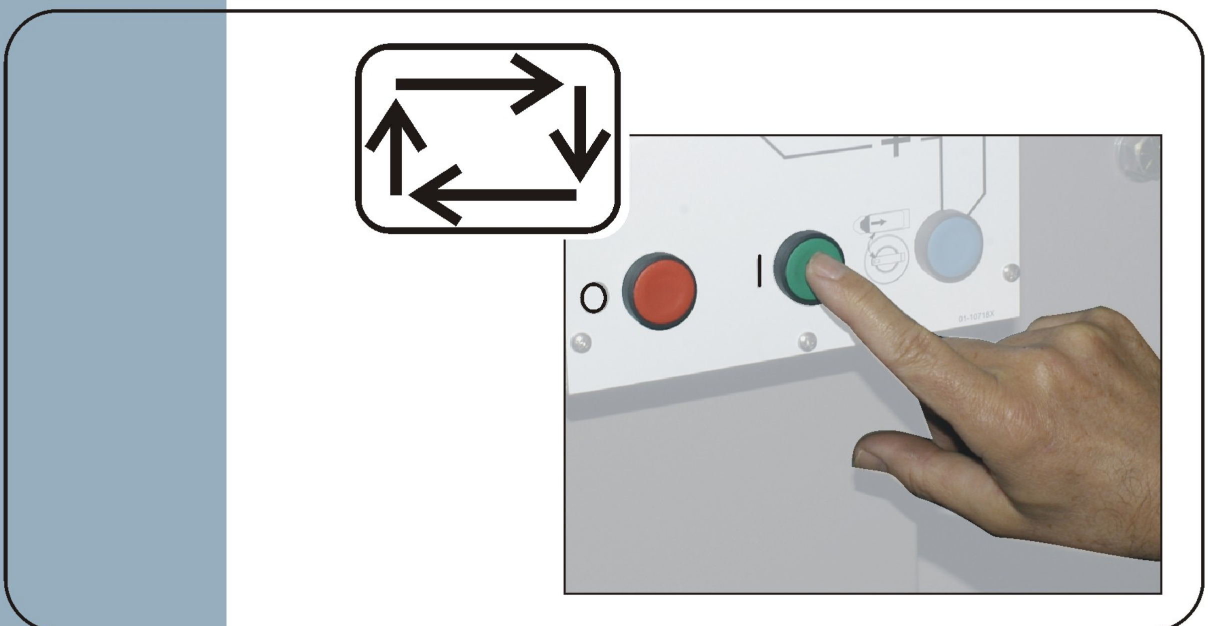
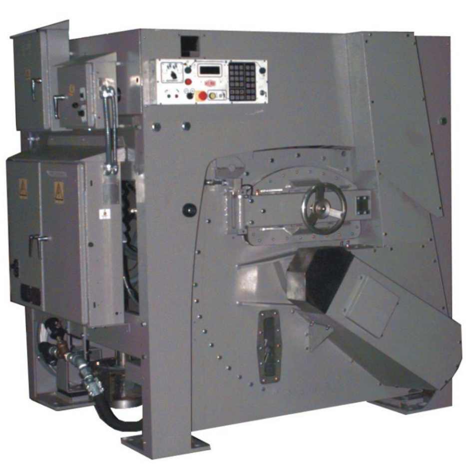
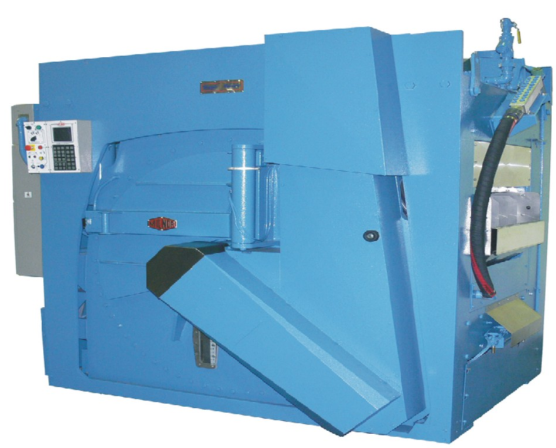
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42044 & 60044SP2/SP3 72044SP2







PELLERIN MILNOR CORPORATION POST OFFICE BOX 400, KENNER, LOUISIANA 70063-0400, U.S.A.

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English 1

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Operator Guide—

StaphGuard® Washer-extractor with Mark VI Controller

Read the separate safety manual before installing, operating, or servicing

PELLERIN MILNOR CORPORATION POST OFFICE BOX 400, KENNER, LOUISIANA 70063 - 0400, U.S.A.

Applicable Milnor® products by model number:

42044SP2 42044SP3 60044SP2 60044SP3 72044SP2

Table of Contents

Chapter 1
Controls

BICWCO02 (Published) Book specs- Dates: 20070515 / 20070515 / 20070515 Lang: ENG01 Applic: CWS

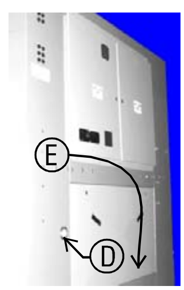
1.1. Controls on Mark VI Non-Tilting Washer-extractors

Refer to other parts of this document (Section 1.1.2 through Section 1.1.4) for the location and basic function of individual controls. Don't use this document as instructions for operating the machine.

1.1.1. Where are the Controls?

The essential controls for normal operation are located on the front control panel (Figure 1). Additional controls and connections are located elsewhere on the machine, as described here.

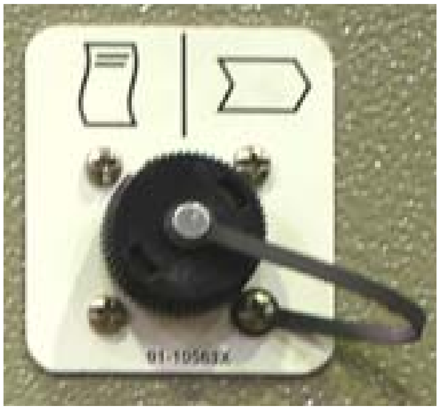
Figure 1: Locations of Controls

Front Left View	Rear View	Legend
		**A.** Microprocessor control box (68036F_B shown) **B.** Control panel **C.** Manual supply flush button **D.** Hydraulic pressure gauge for loading door **E.** Air pressure gauge for tilt system (behind lower rear panel)

1.1.2. Where do I Connect the Data Storage Device?

The microprocessor box in the upper rear corner of the machine left side panel (see Figure 1) contains a DIN-type connection for serial communications. Use this connection, labelled as shown in Figure 2, with a serial data transfer device to save or restore machine programming and configuration memory.

Figure 2: Serial Connection for Data Transfer



1.1.3. What are the Operating Controls?

The primary operating controls are required to start and stop the machine, select wash formulas, and monitor machine operation.

Figure 3: Mark VI Staph Guard Soil Side Controls

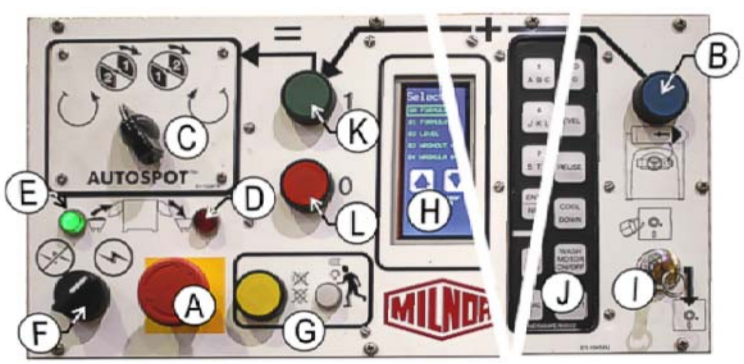
Control Panel	Legend
	**A.** *Emergency stop* button **B.** *Door unlock* button **C.** *Jog/Autospot selector* switch **D.** *Control on clean side* indicator **E.** *Control on soil side* indicator **F.** *Master switch* for power **G.** *Operator signal* and *signal cancel* button **H.** Liquid crystal graphic display **I.** *Run/Program keyswitch* **J.** Keypad **K.** *Start* button **L.** *Stop* button

Figure 4: Keypad



Figure 5: Typical Staph Guard Clean Side Controls

Control Panel	Legend
	**A.** *Emergency stop* button **B.** *Door unlock* button **C.** *Jog/Autospot selector* switch **D.** *Control on clean side* indicator **E.** *Control on soil side* indicator **F.** *Control transfer* button **G.** *Jog/spot* button

Emergency stop button—disables the 3-wire circuit. This switch locks in when pressed, so you must turn it a quarter turn to allow it to return to the normal position to allow the machine to run.

Notice 1: Press the *emergency stop* button immediately in any emergency situation. This disables the 3-wire circuit, which stops all machine operation and causes the drain to open.

- When you reset this button, you have the option of cancelling or resuming the interrupted formula. The formula resumes where it was interrupted or at the beginning of the previous bath step, depending on the operation in progress when the *emergency stop* button was pressed.

Master power switch (/)—removes power from the control system. If you turn the *master switch* off () while a formula is running, the immediate result is similar to pressing the *emergency stop* button: the machine stops and the drain opens. Unlike the *emergency stop* button, resumed formulas start at the beginning of the step in which power was lost, but chemicals are not injected in the resumed step.

Operator signal cancel button ()—cancels the *operator signal*. Press this button to silence the buzzer and turn off the *operator signal* light (see below), or to allow injection of a chemical programmed to require a signal before injection.

Operator signal light—indicates that the machine has encountered an error or that the operator must perform some action, such as pressing the *start* button or unloading the machine. The *operator signal* circuit includes a buzzer behind the control panel, and may include an optional beacon light mounted separately from the control panel.

Liquid crystal graphic display—displays information and help about the machine. The information on the display changes according to the status of the machine and the function selected by the operator.

Keypad—allows the operator to communicate with the machine control system. The keypad is divided into three areas: alphanumeric buttons, general buttons, and function-specific buttons. Each button may perform more than one function, based on the current machine status. Some buttons are also used in combinations for additional functions.

Start button ()—starts the selected wash formula. The *start* button energizes the 3-wire circuit to allow the machine to operate.

Stop button ()—stops machine operation. Like the *emergency stop* button, the *stop* button disables the 3-wire circuit; however, the *stop* button doesn't require you to manually reset it after use.

Run/Program keyswitch (/)—in the *Program* position, allows changes to machine configuration and wash formulas, among other actions. In the normal *Run* position, formulas and configuration are protected and formulas can be run.

1.1.4. What does this Switch do?

Other buttons and switches are used to control additional standard and optional machine functions. These miscellaneous controls are located and described in this section.

Mildata/Local selector switch (Figure 6)—located on the microprocessor control box (see Figure 1), allows the machine to communicate with a Mildata network. A Mildata network connects several machines together and allows them to share wash formulas and other data with the Mildata computer. When this switch is in the *Mildata* position () and you enter a formula number, the machine requests the contents of the formula from the Mildata computer. When set to the *Local* position (), only formulas present **in the machine** are available.

Figure 6: Mildata/Local Selector switch



Manual supply flush button (Figure 7)—On machines equipped with an optional flushing supply injector, press this button to spray water into the supply injector to flush any remaining

chemicals into the cylinder. If you manually add supplies during a wash formula, press this button to flush any remaining undiluted chemicals out of the supply chute. If the machine is not equipped with the optional supply injector, press this button to flush the liquid chemical inlets with fresh water.

Figure 7: Manual Supply Flush button



Autospot selector switch (Figure 8)—Some divided-cylinder machines are equipped with the *Autospot* feature to aid in loading and unloading. This optional feature optimally positions the basket for access to the selected pocket.

Figure 8: Autospot selector switch



— End of BICWCO02 —

Chapter 2

Normal Operation

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2.1. Operating Instructions for Plant Personnel

2.1.1. Start Here for Safety

This document is meant to remind you, the person operating this washer extractor, of what is required to operate this machine. Do not attempt to operate this machine before an experienced, trained operator explains the details to you.

DANGER 2: Multiple Hazards—Careless operator actions can kill or injure personnel, damage or destroy the machine, damage property, and/or void the warranty.

DANGER 3: Electrocution and Electrical Burn Hazards—Contact with electric power can kill or seriously injure you. Electric power is present inside the cabinetry unless the main machine power disconnect is off.

- Do not unlock or open electric box doors.
- Know the location of the main machine disconnect and use it in an emergency to remove all electric power from the machine.
- Do not service the machine unless qualified and authorized. You must clearly understand the hazards and how to avoid them.

CAUTION 4: Collision, Crushing and Pinch Hazards—Contact with moving components normally isolated by guards, covers, and panels, can entangle and crush your limbs. These components move automatically.

2.1.2. Check Switch Settings

Display or Action	Explanation
	Check that the *run/program* keyswitch is at .
	All emergency stop buttons must be unlatched and in the *ready* position to allow machine operation.
/	Check that the master switch is at .

2.1.3. How do I Load a StaphGuard® Machine?

Display or Action	Explanation
	Open the outer door.
	Select a pocket to load.
	Align the selected pocket with the outer door.
	Open the inner door of the first pocket to load.

Use the procedure defined by facility management to put the goods in the machine.

	Close and latch the inner door.
	Open the inner door of the first pocket to load.

Verify that all pockets are loaded with similar goods to about the same weight.

2.1.4. How do I Select a Formula?

The Mark VI controller can operate in either *local* or *Mildata* mode. In *local* mode, the machine does not communicate with any other devices and runs formulas contained in local controller memory. In *Mildata* mode the machine downloads and runs formulas from the Mildata computer, and frequently updates the display on the Mildata computer.

Figure 9: Selecting a Local or Remote Formula

***Select Program* Displays**



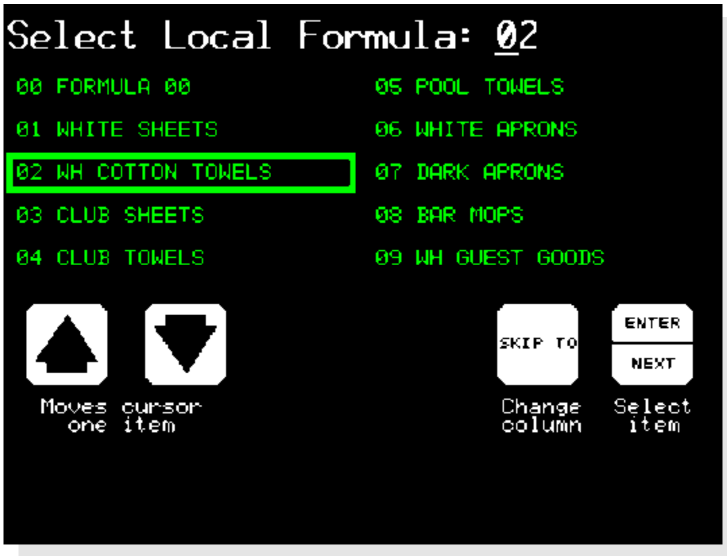
Legend

A. Local (Mildata not present or enabled)
B. Remote (Mildata enabled)

2.1.4.1. Selecting a Local Formula

Selecting a Local Formula—If the machine is not part of a Mildata network, or if the Mildata network is not available, you can choose from any of the wash formulas stored in local memory on the machine. Use the *Select Local Formula* screen (Figure 10) to choose the correct formula for the goods in the machine.

Figure 10: *Select Local Formula* Screen



Display or Action	Explanation
[0] [7]	Directly selects the formula you want to run (07, for example). When you enter a two-digit number, the selected formula moves to the top of the left column on this screen.
[SKIP TO]	Toggles the column for formula selection if necessary. If the desired formula is visible on the screen, but is in the opposite column from the selection box, this keystroke moves the selection box to the other column of formulas.
[↓] / [↑]	Move to the next or previous displayed formula in the current column. If the desired formula is visible on the screen and in the same column as the selection box, you can use these two keys to move the selection box down or up to select the formula.
[ENTER]	Confirm the selected formula. Place the selection box on the formula you want to run, then press [ENTER] to continue with the normal operation procedures.

Supplement 1

About Load Weight and *Metered Water*

Metered water is available on Mark VI washer-extractors equipped with optional flow meters on the incoming water lines. This feature allows the Mark VI controller to admit a quantity of water proportional to the weight of goods you enter after selecting the formula. If you enter a weight of 200 units when prompted, the machine will use twice as much water as if you entered 100 weight units. This option can save a significant amount of water if you enter accurate weights for each load.

Figure 11: Entering Load Weight for Metered Water



Display or Action	Explanation
	Enter the weight of the goods loaded in the machine. The machine controller uses the weight to determine how much water is needed to wash the goods according to the programmed wash formula.
	Accept the entered goods weight and continue.

2.1.4.2. **Selecting a Mildata Formula**—If the machine is part of a Mildata network and the network is available, you can choose any wash formula stored on the Mildata computer. Use the *Select Remote Formula* screen (Figure 12) to choose the best formula for the goods in the machine.

> **Note 1:** You can store up to 1000 different wash formulas on the Mildata computer. All of these formulas are available to all washer-extractors that are part of the Mildata network and have compatible hardware.

Figure 12: ***Select Remote Formula*** **Screen**

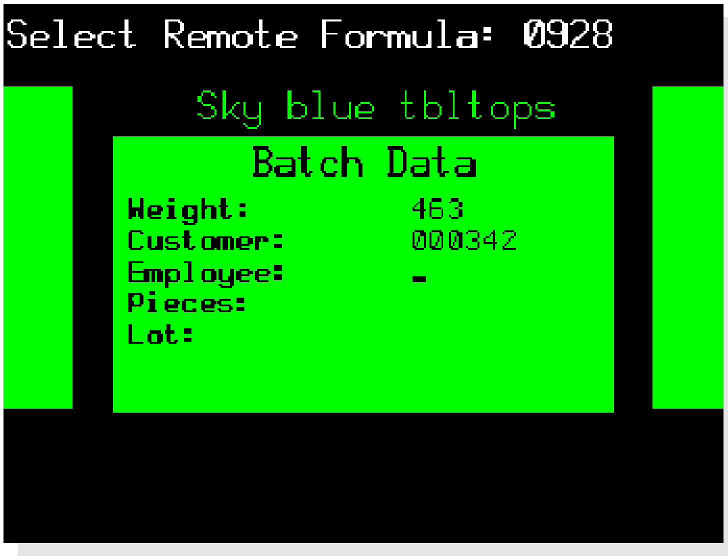


Display or Action	Explanation
0 9 2 8	Select formula 928 (example) stored on the Mildata computer. The Mark VI controller requests the formula from the Mildata computer and displays the formula name, as shown in Figure 12.
ENTER	Confirm that the displayed formula name is the formula you want to run. If the displayed formula isn't the right one for the loaded goods, press CANCEL to clear the formula number, then enter another number.

After you've retrieved and verified the formula, the Mark VI controller prompts for any configured *batch data*.

2.1.4.3. **Entering *Mildata Batch Codes***—The Mark VI controller uses a screen similar Figure 13 to prompt you for the batch data fields selected in machine configuration (see the related section in document BICWCC01). The data you enter is sent to the Mildata computer for accounting and report generation.

Figure 13: Batch Data for Remote Formula Operation



Weight—the weight of the batch of goods in the machine. This information is usually used along with other batch data to calculate customer charges or employee productivity. In machines equiped with optional flow meters and configured for metered water, the weight value is also used to determine how much water is required to process the batch. The weight value can be up to three digits.

Customer Code—the identifying code for the customer. This information can help you determine how much work each customer is submitting. Ten digits are available for customer code.

Employee Number—the identifying code for the employee responsible for this batch. The employee number may be up to five digits long.

Pieces—the number of pieces in the machine. This value sometimes replaces the weight value, especially when charges are made by the piece rather than by weight. Four digits are available for the number of pieces.

Lot Number—the identifying code for several related batches or customers. At your discretion, the value entered here might represent a particular route number common to several accounts. A lot number can be up to 10 digits long.

2.1.5. Start the Selected Formula

Be sure you've completed these steps before you go any further in the operating procedure.

1. You've loaded the machine at or near its rated weight capacity.
2. You've selected a formula that's appropriate for the goods in the machine.
3. You've entered any batch data the machine controller requires for metered water or Mildata reporting.

4. You've closed the door.

Display or Action	**Explanation**
①	Start the selected formula.

The machine begins the wash formula. The basket begins turning and water valves open. When a safe level is achieved, the steam valve may open to begin heating the bath. Operation from this point to the end of the formula is completely automatic unless a signal is programmed with a chemical injection (see Supplement 2).

Supplement 2

Chemical Injections with the Operator Signal

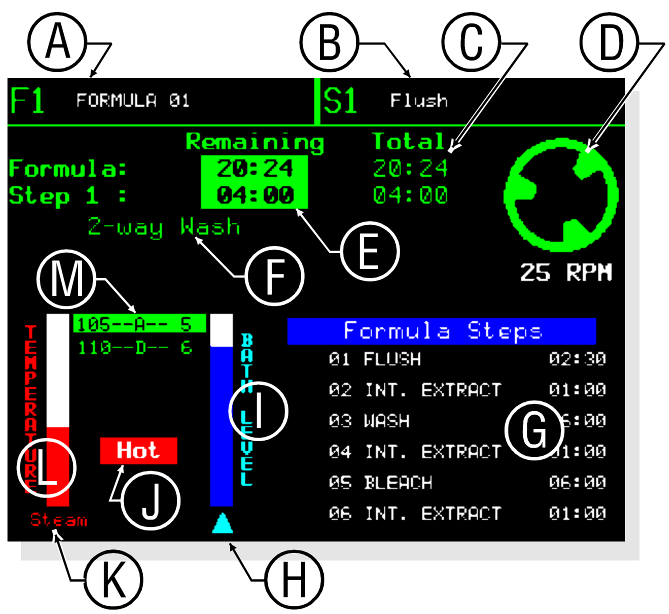
If you need to adjust the amount of a chemical injection from load to load depending on highly variable factors, the formula can be programmed to stop the timer and signal you when a chemical is required. Add the chemical, then press to resume the formula.

2.1.6. What Does the *Run* Display Tell Me?

While the machine is running the formula you selected, the display appears similar to the one shown in Figure 14. The information shown here is explained below.

Figure 14: How to Read the *Run* Display

Typical Display



Legend

A. Formula number and name
B. Step number and name
C. Total time for formula and current step
D. Basket rotation graphic and speed
E. Remaining time for entire formula and current step
F. Machine status message
G. Formula steps: number, name, and duration
H. Indicator for filling or draining
I. Graphic bath level indicator
J. Water valves indicators
K. Indicator for optional steam and cooldown valves
L. Graphic bath temperature indicator
M. Bath temperature and level data

2.1.6.1. Formula and Step Information

—The top line of the display always shows the number and name of the current formula and step. The *formula number* appears in the upper left corner of the display, following the letter “F.”The *formula name* follows the number.

The *step number and name of the current step* are displayed to the right of the formula information. The Mark VI controller updates the formula number and name when a formula starts and at the beginning of each subsequent step.

Below the formula and step names is *time information*. The numbers in the "Total" column (green numbers) show the total time required for the formula and step to run to completion, not including the factors described in Note 2. The controller calculates the "Formula" value when the formula begins, and this value doesn't change while the formula is running. The controller calculates and displays the "Step x" value at the start of each step.

The numbers in the "Remaining" column of the time area (black numbers on a green background) indicate the *time remaining* in the formula and in the current step. These numbers indicate the **minimum** amount of time remaining (see Note 2).

Note 2: The duration of some wash formula events can't be estimated, so the controller stops the timer until a requirement is met. For example, the time required for the machine to fill to the desired level depends on the water pressure to the plant, the size of the piping to the machine, and how many other machines are filling at the same time. In addition to the time required to fill, the time required to achieve temperature or for an operator to verify a chemical injection are variable. Error conditions can also stop the timer.

The controller displays the current *machine status* below the step number and remaining time. Some of the possible machine states are listed in Table 1. Error messages appear immediately below the machine status message when required.

Table 1: Machine Status Messages

Idle	Coasting
1-way Wash	Waiting to Discharge
2-way Wash	Waiting for Load
Soak	Power-up Delay
Pre+Final Extract	Draining to Sewer
Intermediate Extract	Draining to Reuse
Final Extract	Timer Stopped
Double Extract	Please Wait xx Seconds

2.1.6.2. **Basket Rotation**—The *basket rotation graphic* near the upper right corner of the display represents the relative basket speeds in wash, drain, and extract speeds. Immediately below the basket rotation graphic, the controller displays the desired basket speed in either revolutions per minute (RPMs) or in gravitational units (G's).

2.1.6.3. **Bath Temperature and Level**—*Water valve indicators* appear when the corresponding water valve is open.

The graphic *bath temperature indicator* shows the approximate temperature in the machine. The vertical indicator bar is solid red when the temperature in the machine is at the maximum allowable value of 205 degrees Fahrenheit (95 degrees Celsius).

The steam or cooldown indicator appears below the graphic temperature indicator when either of these optional features is enabled. "Steam" appears when the steam valve is open, and "Cooldown" appears when the cooldown output is enabled.

The graphic *bath level indicator* shows the percentage of the desired level that's achieved. The vertical indicator bar is solid blue when the programmed level is achieved, and solid white when there is no water in the machine.

The *level direction indicator arrow* points upward when the actual bath level in the machine is increasing (when the machine is filling), and points downward when the drain opens. The arrow is not visible when level is achieved, or during extract steps.

The controller displays *bath temperature and level data* between the temperature and level graphic indicators. The top line displays the temperature and level that are currently achieved in the machine, and the bottom line displays the desired values.

2.1.6.4. Formula Steps and Chemical Injection—When a formula begins, the controller displays the first six steps in the *formula steps list* in the lower left area of the screen. If the program contains more steps than can be displayed at one time, the list scrolls to display more steps as the earlier ones end. The current step is highlighted.

The list of programmed *chemical injections* replaces the formula steps list during each injection, with a highlight box on the chemical that's currently injecting.

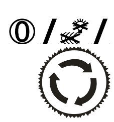
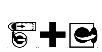
2.1.7. Unload the Machine

When the formula ends, the operator signal sounds and the machine displays a message that it is waiting to discharge (see Figure 15). Use a procedure similar to the one outlined below to unload the goods.

Figure 15: Typical Message when Formula Ends



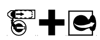
2.1.7.1. For any *End Code*—The Mark VI controller allows you to program one of four possible actions for the end of the formula: *stopped*, *reversing at wash speed*, *turning at drain speed*, or *tumbling*. You use the same unloading procedure for formulas using the first three actions. For the fourth action, you also have the option of using the procedure described in Section 2.1.7.2.

Display or Action	Explanation
	Remove power from the 3-wire circuit, silence the operator signal, and stop any basket motion in progress. This button also unlocks the door so you can open it.
	You can also remove power from the 3-wire circuit, silence the operator signal, and stop any basket motion that was in progress with any of these buttons. However, if you use any of these buttons, you'll still need to unlock the door with  before you can open it. If you use any of these buttons to stop a formula with *end code 3* (see Section 2.1.7.2), the formula is terminated and cannot be resumed.
	Open the door for unloading.

2.1.7.2. For End Code 3 (*Tumbling*)—End code 3 (*Tumbling*) allows you to open the door and remove some of the goods, then close the door and resume tumbling to loosen more goods from the basket.

Display or Action	Explanation
	Remove power from the 3-wire circuit, silence the operator signal, and stop any basket motion in progress. This button also unlocks the door so you can open it.

When the basket stops turning, open the door and remove some or all of the goods from the machine.

	Open the door for unloading.

Remove any desired portion of the load.

	Close the door.
①	Resumes the tumbling action without the operator signal. Tumbling continues for another two minutes, or until you press .

— End of BICWCO03 —

Chapter 3

Signals and Errors

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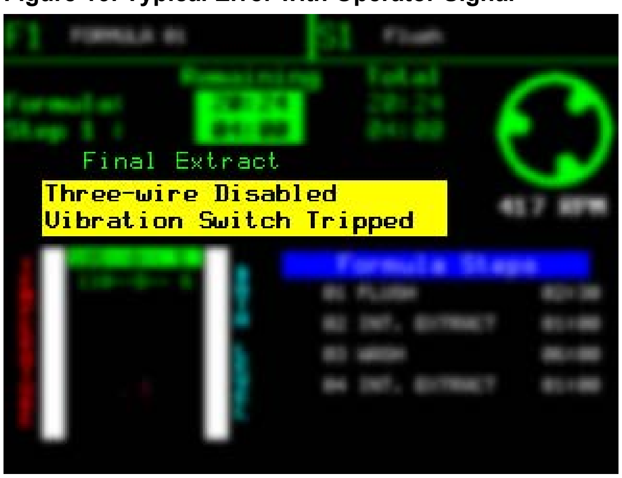
3.1. Operator Intervention

Once a formula starts, the machine usually runs automatically. The machine will sound the signal if an operator needs to make a decision or do something manually. The most common reasons you'll need to attend to the machine are errors, and to manually add chemicals in some cases.

3.1.1. Error with Operator Signal

The operator signal will sound and the beacon will flash if an error causes the machine to stop. These errors usually disable the three-wire circuit, and include a tripped vibration switch or a malfunction of the inverter that controls the motor. Figure 16 shows how a vibration switch error appears on the display.

Figure 16: Typical Error with Operator Signal



To resume the formula, silence the signal and correct the cause of the error. Then, restart the formula.

Display or Action	Explanation
	The Cancel key on the keypad stops the machine, silences the operator signal buzzer, and turns off the signal light. You'll have to restart the formula from the beginning.

Correct the cause of the error. If you don't know how to fix the problem, have someone check the reference manual for the machine.

	If you've corrected the error, the Start button resumes the formula where it stopped. If the vibration switch caused the error, the machine goes through a distribution sequence to spread the goods around the basket, then resumes the interrupted extract step.

3.1.2. Operator Signal for a Chemical

This machine can control an automatic chemical pump system, or it can signal you to add chemicals manually. The display (Figure 17) appears the same in either case, but the operator signal sounds only if the signal is programmed.

If the formula is programmed to control a chemical pump system, the display shows the programmed chemical valve number, chemical name, and injection time. The injection time, shown at the right end of the chemical display, begins counting down immediately when the chemical injection begins.

If the formula is programmed to signal you to manually add chemicals, the machine will operate automatically until it needs a chemical, then the machine stops and waits for you to add the chemical and resume operation. The display changes to show you which chemical to add, but the injection time counter runs only after you cancel the operator signal.

Figure 17: Chemical Injection View on Run Display



Display or Action	Explanation
After you've added the chemical,	
	cancels the operator signal and starts the injection time counter.

— End of BICWCT04 —

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Příručka operátora [Operator Guide]—

StaphGuard® Pračka s kontrolérem Mark VI [StaphGuard® Washer-extractor with Mark VI Controller]

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Read the separate safety manual before installing, operating, or servicing

Čti bezpečnostní manuál

PELLERIN MILNOR CORPORATION POST OFFICE BOX 400, KENNER, LOUISIANA 70063 - 0400, U.S.A.

Aplikovatelné Milnor® Produkty podle čísla modelu: [Applicable Milnor® products by model number:]

42044SP2 42044SP3 60044SP2 60044SP3 72044SP2

Tabulka obsahů [English table of contents follows]

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Kapitola 1 Ovladače

Chapter 1 Controls

BICWCO02 (Published) Book specs- Dates: 20070515 / 20070515 / 20080521 Lang: CZE01 Applic: CWS

1.1. Ovladače na Značka VI Nevyklápět pračce - ždímačce

Viz další části tohoto dokumentu (Sekce 1.1.2 a to prostřednictvím Sekce 1.1.4) pro lokaci a základní funkce jednotlivých ovladačů. Nepoužívej tento dokument jako instrukce pro ovládání stroje.

Controls on Mark VI Non-Tilting Washer-extractors

Refer to other parts of this document (Section 1.1.2 through Section 1.1.4) for the location and basic function of individual controls. Don't use this document as instructions for operating the machine.

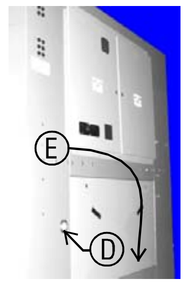
1.1.1. Kde jsou ovladače?

Hlavní ovladače pro normální ovládání jsou na předním ovládacím panelu (Obrázek 1). Přídavné ovladače a spojení jsou umístěny kdekoli na stroji jak zde popsáno.

Where are the Controls?

The essential controls for normal operation are located on the front control panel (Figure 1). Additional controls and connections are located elsewhere on the machine, as described here.

Obrázek [Figure] **1: Umístění ovládacích prvků [Locations of Controls]**

Pohled zleva zepředu [Front Left View]	Pohled zezadu [Rear View]	Legenda [Legend]
		**A.** Ovládací skříň mikroprocesoru (ukazuje 68036F_B) [Microprocessor control box (68036F_B shown)] **B.** Ovládací panel [Control panel] **C.** Tlačítko ručního napouštění (vyplachování) [Manual supply flush button] **D.** Hydraulický tlakový přístroj pro nakládací dveře [Hydraulic pressure gauge for loading door] **E.** Pneumatický tlakový přístroj pro vyklápěcí systém (za spodním zadním panelem) [Air pressure gauge for tilt system (behind lower rear panel)]

1.1.2. Kde napojím zařízení pro uložení dat?

Skříň mikroprocesoru v horním zadním rohu stroje bočního levého panelu (viz Obrázek 1) obsahuje spoje DIN-typu pro řadovou komunikaci. Používej tyto spoje, označené jak ukazuje Obrázek 2, spolu se zařízením pro řadový transfer dat k uložení nebo obnově programovací a konfigurační paměti stroje.

Where do I Connect the Data Storage Device?

The microprocessor box in the upper rear corner of the machine left side panel (see Figure 1) contains a DIN-type connection for serial communications. Use this connection, labelled as shown in Figure 2, with a serial data transfer device to save or restore machine programming and configuration memory.

Obrázek [Figure] **2: Řadové spoje pro transfer dat [Serial Connection for Data Transfer]**



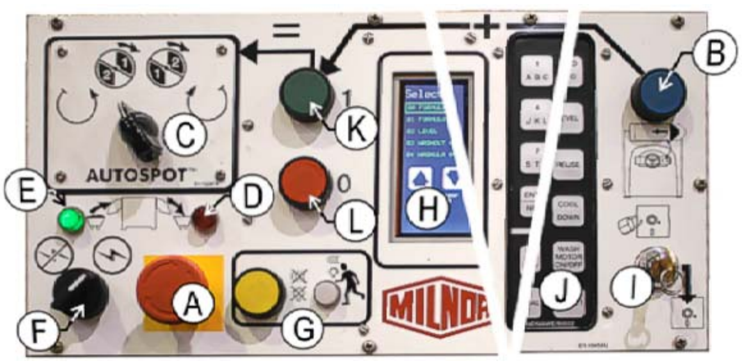
1.1.3. Co jsou operační ovladače? What are the Operating Controls?

Hlavní operační ovladače slouží pro start a stop stroje, výběr programů praní a monitorování funkce stroje.

The primary operating controls are required to start and stop the machine, select wash formulas, and monitor machine operation.

Obrázek [Figure] **3: Boční ovladače hlídání ušpinění typu VI Mark Staph [Mark VI Staph Guard Soil Side Controls]**

Ovládací panel [Control Panel]



Legenda [Legend]

A. *Nouzový stop* tlačítko [*Emergency stop* button]

B. *Odjištění dveří* tlačítko [*Door unlock* button]

C. *Volič Jog/Autospot* spínač [*Jog/Autospot selector* switch]

D. *Ovladač na čisté straně* indikátor [*Control on clean side* indicator]

E. *Ovladač na špinavé straně* indikátor [*Control on soil side* indicator]

F. *Hlavní spínač* pro napájení proudem [*Master switch* for power]

G. tlačítka *Signál pro operátora* a *Signál zrušit* [*Operator signal* and *signal cancel* button]

H. Grafický displej z tekutých krystalů [Liquid crystal graphic display]

I. *Přepínač Běh/Program* [*Run/Program keyswitch*]

J. klávesnice [Keypad]

K. *Start* tlačítko [*Start* button]

L. *Stop* tlačítko [*Stop* button]

Obrázek [Figure] **4: Klávesnice [Keypad]**



Obrázek [Figure] **5: Typické boční ovladače hlídačů Staph [Typical Staph Guard Clean Side Controls]**

Ovládací panel [Control Panel]	Legenda [Legend]
	**A.** *Nouzový stop* tlačítko [*Emergency stop* button] **B.** *Odjištění dveří* tlačítko [*Door unlock* button] **C.** *Jog/Autospot volič* spínač [*Jog/Autospot selector* switch] **D.** *Ovladač na čisté straně* indikátor [*Control on clean side* indicator] **E.** *Ovladač na špinavé straně* indikátor [*Control on soil side* indicator] **F.** *Řízený transfer* tlačítko [*Control transfer* button] **G.** *Jog/spot* tlačítko [*Jog/spot* button]

Tlačítko nouzového zastavení—Vyřazuje 3-fázový obvod. Tento spínač blokuje, když je stisknut, a tak jej musíte otočit o čtvrtinu, aby se vrátil do normální polohy aby stroj běžel.

Oznámení 1: Stiskni ihned *Nouzový stop* tlačítko při jakékoliv nouzové situaci. To vyřadí 3-fázový obvod, který zastaví všechny operace

Emergency stop button—disables the 3-wire circuit. This switch locks in when pressed, so you must turn it a quarter turn to allow it to return to the normal position to allow the machine to run.

Notice 1: Press the *emergency stop* button immediately in any emergency situation. This disables the 3-wire circuit,

stroje a otevření vypouštění.

- Když znovunastavíte toto tlačítko, máte možnost volby zrušit nebo pokračovat v přerušeném programu. Program se obnoví kde byl přerušen, nebo na začátku předchozího kroku dávky, a to v závislosti na operaci, která běžela když tlačítko *Nouzový stop* bylo stlačeno.

Hlavní spínač napájení (/)—Vypne proud v ovládacím systému. Když vypnete *Hlavní spínač* z ( ) při běhu programu, tak okamžitý výsledek je podobný jako když stisknete tlačítko *Nouzový stop*: Stroj zastaví a otevře se vypouštění. Na rozdíl od tlačítka *Nouzový stop*, obnovené programy nastartují na počátku kroku, kdy proud byl přerušen, ale chemikálie (prací prostředky) nejsou v obnoveném kroku vstříknuty.

Rušící tlačítko signálu operátora ( )—Ruší *Signál operátora*. Stiskni toto tlačítko pro umlčení bzučáku a vypni *Signál operátora* světlo (viz dole), nebo povol vstřik chemikálií (pracích prostředků) naprogramovaných na signál před vstřikem.

Světlo signálu operátora—Indikuje, že stroj provedl chybu nebo že operátor musí provést nějakou akci, jako je stisk tlačítka *Start* nebo vyprázdnění stroje. Obvod *Signál operátora* obsahuje bzučák za ovládacím panelem a může mít výstražné světlo (na objednávku) namontované separátně od ovládacího panelu.

Grafický displej z tekutých krystalů—Zobrazuje informace a nápovědy ohledně stroje. Informace na displeji se mění podle stavu stroje a funkcí zvolených operátorem.

Klávesnice—Dovoluje operátorovi komunikovat s řídícím systémem stroje. Klávesnice je rozdělena na tři oblasti: alfanumerická tlačítka, hlavní tlačítka a specifická tlačítka funkcí. Každé tlačítko může ovládat více než jednu funkci na základě běžícího stavu stroje. Některá tlačítka jsou také používána v kombinaci pro

which stops all machine operation and causes the drain to open.

- When you reset this button, you have the option of cancelling or resuming the interrupted formula. The formula resumes where it was interrupted or at the beginning of the previous bath step, depending on the operation in progress when the *emergency stop* button was pressed.

Master power switch (/)—removes power from the control system. If you turn the *master switch* off ( ) while a formula is running, the immediate result is similar to pressing the *emergency stop* button: the machine stops and the drain opens. Unlike the *emergency stop* button, resumed formulas start at the beginning of the step in which power was lost, but chemicals are not injected in the resumed step.

Operator signal cancel button ( )—cancels the *operator signal*. Press this button to silence the buzzer and turn off the *operator signal* light (see below), or to allow injection of a chemical programmed to require a signal before injection.

Operator signal light—indicates that the machine has encountered an error or that the operator must perform some action, such as pressing the *start* button or unloading the machine. The *operator signal* circuit includes a buzzer behind the control panel, and may include an optional beacon light mounted separately from the control panel.

Liquid crystal graphic display—displays information and help about the machine. The information on the display changes according to the status of the machine and the function selected by the operator.

Keypad—allows the operator to communicate with the machine control system. The keypad is divided into three areas: alphanumeric buttons, general buttons, and function-specific buttons. Each button may perform more than one function, based on the current machine status. Some buttons are also used in

přídavné funkce.

combinations for additional functions.

Tlačítko Start ()—Startuje vybraný prací program. Tlačítko *Start* vybudí 3-fázový obvod aby stroj pracoval.

Start button ()—starts the selected wash formula. The *start* button energizes the 3-wire circuit to allow the machine to operate.

Tlačítko Stop ()—Zastaví běh stroje. Jako tlačítko *Nouzový stop* rovněž tlačítko *Stop* vypne 3-fázový obvod; ale tlačítko*Stop*nevyžaduje manuální reset po použití.

Stop button ()—stops machine operation. Like the *emergency stop* button, the *stop* button disables the 3-wire circuit; however, the *stop* button doesn't require you to manually reset it after use.

Běh/Programový přepínač (/)—V pozici *Program*,dovoluje měnit konfiguraci stroje a prací programy mezi ostatními akcemi. V normální pozici *Běh* jsou programy a konfigurace chráněny, přičemž programy mohou běžet.

Run/Program keyswitch (/)—in the *Program* position, allows changes to machine configuration and wash formulas, among other actions. In the normal *Run* position, formulas and configuration are protected and formulas can be run.

1.1.4. Co tento spínač dělá?

Ostatní tlačítka a spínače jsou používány k řízení přídavných standardů a volitelných funkcí stroje. Tyto rozmanité ovladače jsou alokovány a popsány v této sekci.

What does this Switch do?

Other buttons and switches are used to control additional standard and optional machine functions. These miscellaneous controls are located and described in this section.

Mildata/místní volící spínač (Obrázek 6)—Je umístěný v ovládací skříni mikroprocesoru (viz. Obrázek 1), přičemž umožňuje stroji komunikovat se sítí Mildata. Mildata síť spojuje několik strojů dohromady a umožňuje jim sdílet prací programy a jiná data s počítačem Mildata. Když je tento spínač *Mildata* v poloze() a zadáš-li číslo programu, tak stroj si vyžádá obsah programu z Mildata počítače. Když nastavíš do *Místní* polohu (), tak jsou k dispozici pouze přítomné programy **Ve stroji**.

Mildata/Local selector switch (Figure 6)—located on the microprocessor control box (see Figure 1), allows the machine to communicate with a Mildata network. A Mildata network connects several machines together and allows them to share wash formulas and other data with the Mildata computer. When this switch is in the *Mildata* position () and you enter a formula number, the machine requests the contents of the formula from the Mildata computer. When set to the *Local* position (), only formulas present **in the machine** are available.

Obrázek [Figure] **6: Mildata/místní volící spínač [Mildata/Local Selector switch]**



Tlačítko ručního napouštění (Obrázek 7)— Na strojích vybavených volitelným

Manual supply flush button (Figure 7)— On machines equipped with an optional

a strojích vybavených volitelným injektorem napouštění, stiskni toto tlačítko ke vstříknutí vody do injektoru pro naplnění jakýchkoliv zbývajících chemikálií (pracích prostředků) do válce. Jestliže přidáš ručně dávku během pracího programu, stiskni toto tlačítko ke spláchnutí zbývajících nerozpuštěných chemikálií pryč ze skluzavky. Není-li stroj vybaven tímto volitelným injektorem, stiskni toto tlačítko, aby se smísily kapalné chemikálie (prací prostředky) s čerstvou vodou.

n machines equipped with an optional flushing supply injector, press this button to spray water into the supply injector to flush any remaining chemicals into the cylinder. If you manually add supplies during a wash formula, press this button to flush any remaining undiluted chemicals out of the supply chute. If the machine is not equipped with the optional supply injector, press this button to flush the liquid chemical inlets with fresh water.

Obrázek [Figure] **7: Tlačítko ručního napouštění [Manual Supply Flush button]**



Volící spínač Autospotu (Obrázek 8)— Některé stroje s děleným válcem jsou vybaveny *Autospot* možností k získání nakládky a vykládky. Tato volitelná možnost optimálně polohuje koš kvůli přístupu na volitelný žok.

Autospot selector switch (Figure 8)—Some divided-cylinder machines are equipped with the *Autospot* feature to aid in loading and unloading. This optional feature optimally positions the basket for access to the selected pocket.

Obrázek [Figure] **8: Volící spínač Autospotu [Autospot selector switch]**



— Konec BICWCO02 —

— End of BICWCO02 —

Kapitola 2 Normální operace

Chapter 2 Normal Operation

BICWCO03 (Published) Book specs- Dates: 20070515 / 20070515 / 20080521 Lang: CZE01 Applic: CWS

2.1. Pracovní instrukce pro obslužný personál

Operating Instructions for Plant Personnel

2.1.1. Zde startuj kvůli bezpečnosti

Tento dokument je míněn aby ti připomenul coby osobě obsluhující tuto pračku, co se požaduje k ovládání tohoto stroje. Nepokoušej se řídit tento stroj dříve než ti zkušený a školený operátor vysvětlí detaily.

Start Here for Safety

This document is meant to remind you, the person operating this washer extractor, of what is required to operate this machine. Do not attempt to operate this machine before an experienced, trained operator explains the details to you.

NEBEZPEČÍ [2]: Mnohonásobné nebezpečí—Nebezpečné akce operátora mohou zabít nebo zranit personál, poškodit nebo zničit stroj, poškodit majetek a/nebo zneplatnit záruky.

DANGER [2]: Multiple Hazards—Careless operator actions can kill or injure personnel, damage or destroy the machine, damage property, and/or void the warranty.

NEBEZPEČÍ [3]: Elektroúraz a nebezpečí požáru elektřinou—Kontakt s elektřinou tě může zabít nebo vážně zranit. Elektřina je uvnitř skříně i pokud je hlavní spínač stroje rozpojen.

- Neodjišťuj a neotvírej dveře elektrické skříně.
- Pamatuj si umístění hlavního přípoje stroje a použij jej v nouzi, abys vypnul kompletně elektřinu ve stroji.
- Neobsluhuj stroj pokud nejsi kvalifikovaný a nemáš to dovoleno. Musíš jasně porozumět nebezpečím a vědět jak jim předcházet.

DANGER [3]: Electrocution and Electrical Burn Hazards—Contact with electric power can kill or seriously injure you. Electric power is present inside the cabinetry unless the main machine power disconnect is off.

- Do not unlock or open electric box doors.
- Know the location of the main machine disconnect and use it in an emergency to remove all electric power from the machine.
- Do not service the machine unless qualified and authorized. You must clearly understand the hazards and how to avoid them.

POZOR 4: Nebezpečí kolize, rozmačkání a skřípnutí.—Kontakt s pohyblivými komponenty, normálně izolovanými kryty a panely může vtáhnout a rozmačkat vaše končetiny. Tyto komponenty se hýbou automaticky.

CAUTION 4: Collision, Crushing and Pinch Hazards—Contact with moving components normally isolated by guards, covers, and panels, can entangle and crush your limbs. These components move automatically.

2.1.2. Nastavení kontrolního spínače — Check Switch Settings

Displej nebo akce [Display or Action]	Vysvětlení	Explanation
	Kontroluj, že spínač *Běh/program* je v .	Check that the *run/program* keyswitch is at .
	Všechna nouzová stop tlačítka musí být uvolněna a v *Připraven* pozici, aby dovolovala funkci stroje.	All emergency stop buttons must be unlatched and in the *ready* position to allow machine operation.
/	Zkontroluj, že hlavní spínač je v .	Check that the master switch is at .

2.1.3. Jak mohu naložit StaphGuard® stroj? — How do I Load a StaphGuard® Machine?

Displej nebo akce [Display or Action]	Vysvětlení	Explanation
+	Otevři Venkovní dveře.	Open the outer door.
	Zvol žok k naložení.	Select a pocket to load.
+ ①	Ustav zvolený žok k vnějším dveřím.	Align the selected pocket with the outer door.
	Otevři vnitřní dveře k naložení prvního žoku.	Open the inner door of the first pocket to load.

Použij postup definovaný vedením provozovny k vložení prádla do stroje.

Use the procedure defined by facility management to put the goods in the machine.

	Uzavři a zamkni vnitřní dveře.	Close and latch the inner door.
	Otevři vnitřní dveře k naložení prvního žoku.	Open the inner door of the first pocket to load.

Ověř že všechny žoky jsou naloženy podobným zbožím přibližně stejné váhy.

Verify that all pockets are loaded with similar goods to about the same weight.

2.1.4. Jak mám zvolit program? — How do I Select a Formula?

Kontrolér Mark VI může pracovat buď v *Místní* nebo *Mildata* režimu. V *Místní* režimu, stroj nekomunikuje s žádnými jinými zařízeními a

The Mark VI controller can operate in either *local* or *Mildata* mode. In *local* mode, the machine does not communicate with any

provádí programy obsažené v místní paměti kontroléru. V *Mildata* režimu, stroj nahraje a provádí programy z Mildata počítače a ty opakovaně se zobrazují na displeji Mildata počítače.

other devices and runs formulas contained in local controller memory. In *Mildata* mode the machine downloads and runs formulas from the Mildata computer, and frequently updates the display on the Mildata computer.

Obrázek [Figure] **9: Volí místní nebo externí programy [Selecting a Local or Remote Formula]**

***Zvol Program* Displeje (nebo zobrazuje) [*Select Program* Displays]**



Legenda [Legend]

A. Místní (Mildata nejsou nebo nejsou umožněna) [Local (Mildata not present or enabled)]

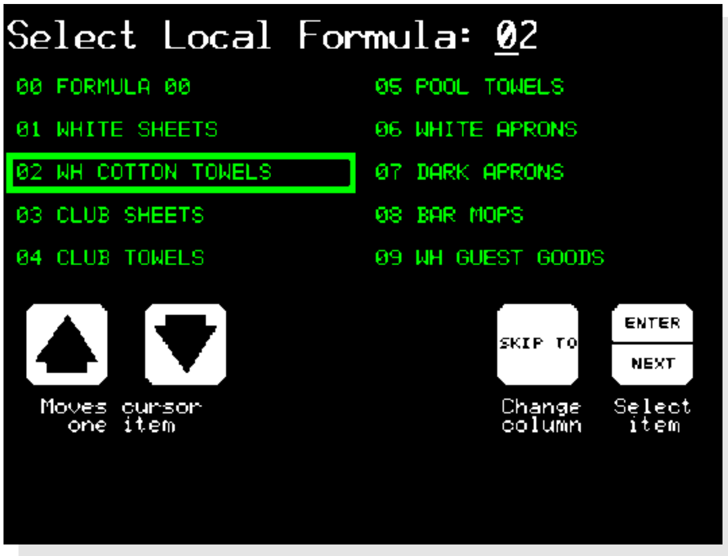
B. Externí (Mildata neumožněna) [Remote (Mildata enabled)]

2.1.4.1. Volí místní program

Volí místní program—Jestliže stroj není částí Mildata sítě, či ta není k dispozici, můžeš vybrat jakýkoliv z pracích programů uložených v místní paměti stroje. Použij *Zvol místní program* obrazovku z (Obrázek 10) k vybrání správného programu pro zboží ve stroji.

Selecting a Local Formula—If the machine is not part of a Mildata network, or if the Mildata network is not available, you can choose from any of the wash formulas stored in local memory on the machine. Use the *Select Local Formula* screen (Figure 10) to choose the correct formula for the goods in the machine.

Obrázek [Figure] **10:** ***Zvol místní program*** **obrazovka [*Select Local Formula* Screen]**



Displej nebo akce [Display or Action]	**Vysvětlení**	**Explanation**
0 7	Přímo zvol program, který chceš nechat běžet (07, například). Když zapíšeš dvouciferné číslo, zvolený program se objeví na vršku levého sloupce této obrazovky.	Directly selects the formula you want to run (07, for example). When you enter a two-digit number, the selected formula moves to the top of the left column on this screen.
SKIP TO	Přiřadí řádek pro volbu programu je-li to nutné. Jestliže požadovaný program je vidět na obrazovce, ale je v opačném řádku mimo volící box, tak stlačením tlačítka přeřadíš volící box do druhého (dalšího) řádku programu.	Toggles the column for formula selection if necessary. If the desired formula is visible on the screen, but is in the opposite column from the selection box, this keystroke moves the selection box to the other column of formulas.
↓ / ↑	Běž na další nebo předchozí zobrazený program v běžícím řádku. Je-li požadovaný program vidět na obrazovce a v tom samém sloupci jako volící box, můžete použít tyto dvě klávesy k přesunutí volícího boxu dolů nebo nahoru k volbě programu.	Move to the next or previous displayed formula in the current column. If the desired formula is visible on the screen and in the same column as the selection box, you can use these two keys to move the selection box down or up to select the formula.

Displej nebo akce [Display or Action]	Vysvětlení	Explanation
ENTER	Potvrď zvolený program. Umísti volící box na program co chceš provádět, pak stiskni u pro pokračování v normálních operačních procedurách.	Confirm the selected formula. Place the selection box on the formula you want to run, then press ENTER to continue with the normal operation procedures.

Příloha 1

O váze nákladu a *Odměřená voda*

Měřená voda je na Mark VI pračce opatřená volitelným průtokovým měřidlem na přívodu vody. Toto vybavení umožňuje kontroléru Mark VI přivádět množství vody úměrně k váze zboží které jsi zapsal (vložil) po zvolení programu. Jestli jsi hned zapsal váhu 200 jednotek, tak stroj použije dvakrát tolik vody a to tolik, jako kdyby jsi zapsal 100 váhových jednotek. Tato volba může ušetřit značné množství vody jestliže zapíšeš přesně váhy každého nákladu.

Supplement 1

About Load Weight and *Metered Water*

Metered water is available on Mark VI washer-extractors equipped with optional flow meters on the incoming water lines. This feature allows the Mark VI controller to admit a quantity of water proportional to the weight of goods you enter after selecting the formula. If you enter a weight of 200 units when prompted, the machine will use twice as much water as if you entered 100 weight units. This option can save a significant amount of water if you enter accurate weights for each load.

Obrázek [Figure] **11: Zapisování váhy nákladu pro měřenou vodu [Entering Load Weight for Metered Water]**



Displej nebo akce [Display or Action]	**Vysvětlení**	**Explanation**
4 4 9	Zapiš váhu zboží naloženou do stroje. Kontrolér stroje použije váhu aby určil, kolik vody je potřeba k praní v závislosti na nastaveném programu.	Enter the weight of the goods loaded in the machine. The machine controller uses the weight to determine how much water is needed to wash the goods according to the programmed wash formula.
ENTER	Akceptuj zapsanou váhu zboží a pokračuj.	Accept the entered goods weight and continue.

2.1.4.2. **Volba programu Mildata**—Je-li stroj částí Mildata sítě a ta je k dispozici, můžeš vybrat jakýkoliv prací program na Mildata počítači. Použij *Zvol externí program* obrazovku z (Obrázek 12) pro výběr nejlepšího programu pro zboží ve stroji.

Selecting a Mildata Formula—If the machine is part of a Mildata network and the network is available, you can choose any wash formula stored on the Mildata computer. Use the *Select Remote Formula* screen (Figure 12) to choose the best formula for the goods in the machine.

Poznámka 1: Do Mildata počítače můžeš uložit až 1000 různých pracích programů. Všechny tyto programy jsou použitelné pro všechny pračky co jsou částí Mildata sítě a jsou kompatibilní.

Note 1: You can store up to 1000 different wash formulas on the Mildata computer. All of these formulas are available to all washer-extractors that are part of the Mildata network and have compatible hardware.

Obrázek [Figure] **12:** ***Zvol externí program*** **Obrazovka [*Select Remote Formula* Screen]**



Displej nebo akce [Display or Action]	**Vysvětlení**	**Explanation**
0 9 2 8	Zvol program 928 (příklad) uložený v Mildata počítači. Mark VI kontrolér vyžaduje program z Mildata počítače a zobrazí jméno programu, jak vidět v Obrázek 12.	Select formula 928 (example) stored on the Mildata computer. The Mark VI controller requests the formula from the Mildata computer and displays the formula name, as shown in Figure 12.
ENTER	Potvrď, že zobrazené jméno programu odpovídá programu co chceš použít. Jestliže zobrazený program neodpovídá tomu pro vložené zboží, stiskni c abys vymazal číslo programu a pak zapiš jiné číslo.	Confirm that the displayed formula name is the formula you want to run. If the displayed formula isn't the right one for the loaded goods, press CANCEL to clear the formula number, then enter another number.

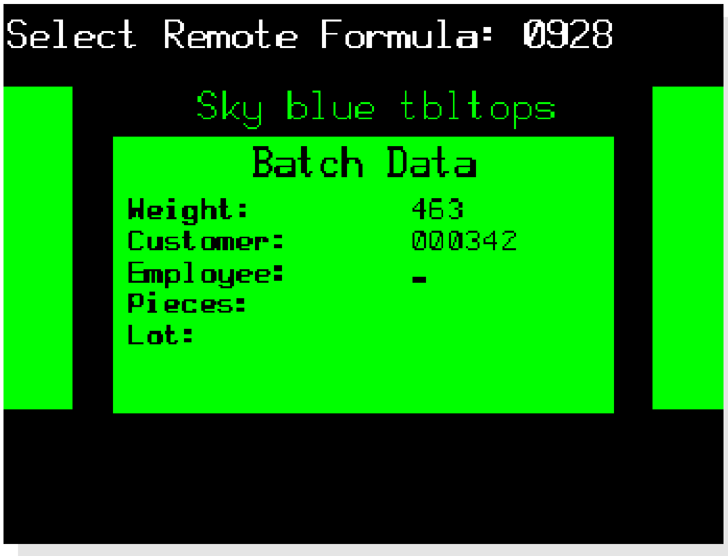
Potom co jsi nahradil a ověřil program, tak Mark VI kontrolér napoví konfigurované *Data dávky*.

After you've retrieved and verified the formula, the Mark VI controller prompts for any configured *batch data*.

2.1.4.3. Zapisování *Kódy dávky Mildata*—Mark VI kontrolér používá obrazovku podobnou s Obrázek 13, aby napověděl pole data dávky zvolené v konfiguraci stroje (viz Odpovídající sekce v dokumentu BICWCC01). Data co jsi zapsal jsou poslána do Mildata počítače pro spočtení a nahlášení.

Entering *Mildata Batch Codes*—The Mark VI controller uses a screen similar Figure 13 to prompt you for the batch data fields selected in machine configuration (see the related section in document BICWCC01). The data you enter is sent to the Mildata computer for accounting and report generation.

Obrázek [Figure] **13: Data dávky pro funkci externího programu [Batch Data for Remote Formula Operation]**



Váha—Váha dávky zboží ve stroji. Tato informace se obvykle používá spolu s ostatními údaji o dávce pro kalkulaci nákladů zákazníka nebo produktivity zaměstnance. U strojů vybavených volitelným průtokovým měřidlem a konfigurovaných pro měření vody, je hodnota váhy také užita k určení jak moc vody je požadováno do dávky. Hodnota váhy může být až třímístná.

Kód zákazníka—Identifikační kód pro zákazníka. Tato informace ti pomůže určit kolik práce každý zákazník představuje. Pro kód zákazníka je možno použít až deset číslic.

Číslo zaměstnance—Identifikační kód zaměstnance odpovědného za dávku. Číslo zaměstnance může mít až pět čísel.

Kusy—Počet kusů ve stroji. Tato hodnota někdy nahrazuje hodnotu váhy, speciálně když vsázky jsou provedeny podle kusů raději než podle váhy. Pro počet kusů jsou určeny čtyři číslice.

Číslo lotu (skupiny)—Identifikační kód pro několik k sobě návazných (příbuzných) dávek nebo zákazníků. Dle tvého uvážení hodnota zde zapsaná může představovat specielní číslo cesty k několika účtům. Číslo lotu může mít až 10 číslic.

Weight—the weight of the batch of goods in the machine. This information is usually used along with other batch data to calculate customer charges or employee productivity. In machines equiped with optional flow meters and configured for metered water, the weight value is also used to determine how much water is required to process the batch. The weight value can be up to three digits.

Customer Code—the identifying code for the customer. This information can help you determine how much work each customer is submitting. Ten digits are available for customer code.

Employee Number—the identifying code for the employee responsible for this batch. The employee number may be up to five digits long.

Pieces—the number of pieces in the machine. This value sometimes replaces the weight value, especially when charges are made by the piece rather than by weight. Four digits are available for the number of pieces.

Lot Number—the identifying code for several related batches or customers. At your discretion, the value entered here might represent a particular route number common to several accounts. A lot number can be up to 10 digits long.

2.1.5. Startuj zvolený program

Ujisti se, že máš zkompletovány tyto kroky před tím než budeš pokračovat v jakékoliv další práci.

1. Máš naložen stroj přesně nebo okolo jeho váhové kapacity.
2. Máš zvolený program vhodný pro zboží ve stroji.
3. Máš zapsána všechna data dávky co kontrolér stroje požaduje pro měření vody nebo pro hlášení Mildata.
4. Máš zavřena dvířka.

Start the Selected Formula

Be sure you've completed these steps before you go any further in the operating procedure.

1. You've loaded the machine at or near its rated weight capacity.
2. You've selected a formula that's appropriate for the goods in the machine.
3. You've entered any batch data the machine controller requires for metered water or Mildata reporting.
4. You've closed the door.

Displej nebo akce [Display or Action]	**Vysvětlení**	**Explanation**
①	Startuj zvolený program.	Start the selected formula.

Stroj provádí program. Koš se začne otáčet a ventily vody se otevřou. Když je dosažena bezpečná úroveň, tak parní ventil se může otevřít a dojde k ohřevu dávky. Proces od této chvíle až po konec programu je kompletně automatický, ledaže by byl naprogramován signál pro vstřik chemikálií (pracích prostředků). (viz. Příloha 2).

The machine begins the wash formula. The basket begins turning and water valves open. When a safe level is achieved, the steam valve may open to begin heating the bath. Operation from this point to the end of the formula is completely automatic unless a signal is programmed with a chemical injection (see Supplement 2).

Příloha 2

Vstříknutí chemikálií (pracích prostředků) v návaznosti na signál operátora.

Jestli chceš nastavit množství pracích prostředků od naložení do naložení v závislosti na vysoce variabilních faktorech, program může být nastaven tak, že zastaví časovač a signalizuje ti, kdy se vyžaduje chemikálie (prací prostředky). Přidej chemikálii, pak zmáčkni k pokračování programu.

Supplement 2

Chemical Injections with the Operator Signal

If you need to adjust the amount of a chemical injection from load to load depending on highly variable factors, the formula can be programmed to stop the timer and signal you when a chemical is required. Add the chemical, then press to resume the formula.

2.1.6. Co mi displej *Běh* oznamuje?

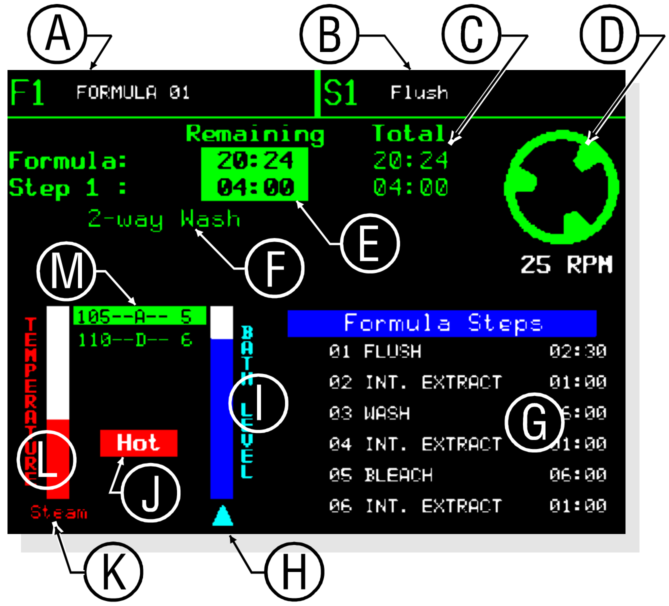
Zatím co stroj běží podle programu, který jsi zvolil, displej ukazuje to samé co je v Obrázek 14. Zde zobrazená informace je vysvětlena dole.

What Does the *Run* Display Tell Me?

While the machine is running the formula you selected, the display appears similar to the one shown in Figure 14. The information shown here is explained below.

Obrázek [Figure] **14: Jak číst displej *Běh* [How to Read the *Run* Display]**

Typický displej [Typical Display]



Legenda [Legend]

A. Číslo a jméno programu [Formula number and name]

B. Číslo a jméno kroku [Step number and name]

C. Doba trvání programu a běžící krok [Total time for formula and current step]

D. Grafická rotace programu a rychlost [Basket rotation graphic and speed]

E. Zbývající čas programu a běžící krok [Remaining time for entire formula and current step]

F. Zpráva o stavu stroje [Machine status message]

G. Kroky programu: číslo, jméno a trvání [Formula steps: number, name, and duration]

H. Indikátor plnění nebo vypouštění [Indicator for filling or draining]

I. Grafický indikátor hladiny dávky [Graphic bath level indicator]

J. Indikátory vodních ventilů [Water valves indicators]

K. Indikátory ventilů volitelné páry a ochlazování [Indicator for optional steam and cooldown valves]

L. Grafický indikátor teploty dávky [Graphic bath temperature indicator]

M. Teplota dávky a údaje [Bath temperature and level data]

2.1.6.1. Informace o programu a kroku—Horní část displeje vždy ukazuje číslo a jméno běžícího programu a kroku. *Číslo programu* ukazuje v levém horním rohu displeje za symbolem “F.” symbol *Jméno programu* a to následně za číslem.

Formula and Step Information—The top line of the display always shows the number and name of the current formula and step. The *formula number* appears in the upper left corner of the display, following the letter “F.”The *formula name* follows the number.

Číslo a jméno běžícího kroku jsou vidět napravo v informaci o programu. Kontrolér Mark VI ukazuje číslo programu a jméno když program startuje a na začátku každého následného kroku.

The *step number and name of the current step* are displayed to the right of the formula information. The Mark VI controller updates the formula number and name when a formula starts and at the beginning of each subsequent step.

Pod jmény programu a kroku je *Časová informace*. Čísla v "Celkem" řádku (zelená čísla), znamenají celkový čas požadovaný pro program a krok do dokončení, přičemž nezahrnují faktory popsané v Poznámka 2. Kontrolér počítá "Program" hodnotu když program začíná, přičemž tato hodnota se nemění když je program v běhu. Kontrolér spočte a ukáže hodnotu "Krok x" na startu každého kroku.

Below the formula and step names is *time information*. The numbers in the "Total" column (green numbers) show the total time required for the formula and step to run to completion, not including the factors described in Note 2. The controller calculates the "Formula" value when the formula begins, and this value doesn't change while the formula is running. The controller calculates and displays the "Step x" value at the start of each step.

Čísla ve sloupci "Zbývající" od kolonky času (černá čísla na zeleném pozadí), indikují *Zbývající čas* v programu a běžícím kroku. Tato čísla ukazují hodnotu **Minimum**zbývajícího času (viz. Poznámka 2).

The numbers in the "Remaining" column of the time area (black numbers on a green background) indicate the *time remaining* in the formula and in the current step. These numbers indicate the **minimum** amount of time remaining (see Note 2).

Poznámka 2: Doba trvání programu nemůže být odhadnuta a tak kontrolér zastaví časovač pokud je požadavek splněn. Například, čas požadovaný aby stroj napustil požadovanou hladinu, závisí na tlaku vody v provozovně, světlosti trubek stroje a jak moc ostatních strojů zrovna napouští. Dále, i časy požadované pro napuštění, k dosažení teploty nebo čas operátora k ověření a vstřiku chemikálií (pracích prostředků), jsou proměnné. Také chyby mohou zastavit časovač.

Note 2: The duration of some wash formula events can't be estimated, so the controller stops the timer until a requirement is met. For example, the time required for the machine to fill to the desired level depends on the water pressure to the plant, the size of the piping to the machine, and how many other machines are filling at the same time. In addition to the time required to fill, the time required to achieve temperature or for an operator to verify a chemical injection are variable. Error conditions can also stop the timer.

Kontrolér ukazuje běžící *Stav stroje* a to pod číslem kroku a zbývajícím časem. Některé z možných stavů stroje jsou uvedeny v Tabulka 1. Chybové zprávy se objevují ihned pod zprávou o stavu stroje, když se to požaduje.

The controller displays the current *machine status* below the step number and remaining time. Some of the possible machine states are listed in Table 1. Error messages appear immediately below the machine status message when required.

Tabulka 1: Zpráva o stavu stroje [English table follows]

Prázdný (nepracující?)	Volný doběh
1-způsob praní	Čekám na vypouštění
2-způsob praní	Čekám na naložení
Namáčení	Zpoždění pohonu ?
Přípravné+Konečné ždímání	Vypouštění do kanalizace
Meziždímání	Vypouštění k dalšímu použití
Konečné ždímání	Časovač zastaven
Dvojité ždímání	Prosím počkejte xx vteřin

Table 1: Machine Status Messages

Idle	Coasting
1-way Wash	Waiting to Discharge
2-way Wash	Waiting for Load
Soak	Power-up Delay
Pre+Final Extract	Draining to Sewer
Intermediate Extract	Draining to Reuse
Final Extract	Timer Stopped
Double Extract	Please Wait xx Seconds

2.1.6.2. **Rotace koše**—*Grafická rotace koše* umístěné blízko horního pravého rohu displeje, reprezentuje relativní rychlost koše při praní, vypouštění a rychlosti ždímání. Hned pod grafickou rotací koše, uvádí kontrolér požadovanou rychlost koše a to buď v otáčkách za minutu (RPM), nebo v gravitačních jednotkách (G's).

Basket Rotation—The *basket rotation graphic* near the upper right corner of the display represents the relative basket speeds in wash, drain, and extract speeds. Immediately below the basket rotation graphic, the controller displays the desired basket speed in either revolutions per minute (RPMs) or in gravitational units (G's).

2.1.6.3. **Teplota dávky a hladina**—*Indikátory vodních ventilů* se objeví když je odpovídající vodní ventil otevřen.

Bath Temperature and Level—*Water valve indicators* appear when the corresponding water valve is open.

Graf *Indikátor teploty dávky* ukazuje přibližnou teplotu ve stroji. Vertikální ukazatel indikátoru je zcela červený kdy je teplota stroje na maximu z povolené hodnoty 205 stupňů Fahrenheita (95 stupňů Celsia).

The graphic *bath temperature indicator* shows the approximate temperature in the machine. The vertical indicator bar is solid red when the temperature in the machine is at the maximum allowable value of 205 degrees Fahrenheit (95 degrees Celsius).

Indikátor páry a ochlazování je pod grafickým indikátorem teploty a to v případě když jsou instalovány na přání. “Pára” se objeví když se otevře parní ventil, a “Ochlazování” se objeví když je vydán povel pro ochlazování.

The steam or cooldown indicator appears below the graphic temperature indicator when either of these optional features is enabled. “Steam” appears when the steam valve is open, and “Cooldown” appears when the cooldown output is enabled.

Graf *Indikátor hladiny dávky* ukazuje procentní podíl naplnění požadované hladiny. Vertikální ukazatel je zcela modrý, když je nastavená hladina dosažena, a úplně bílý když ve stroji není žádná voda.

The graphic *bath level indicator* shows the percentage of the desired level that's achieved. The vertical indicator bar is solid blue when the programmed level is achieved, and solid white when there is no water in the machine.

Šipka indikátoru směru hladiny ukazuje nahoru když aktuální hladina ve stroji stoupá (stroj se napouští), a dolů když se vypouští. Šipka není vidět když je hladina dosažena, nebo během ždímání.

The *level direction indicator arrow* points upward when the actual bath level in the machine is increasing (when the machine is filling), and points downward when the drain opens. The arrow is not visible when level is achieved, or during extract steps.

Kontrolér ukazuje *Údaje o teplotě vody a hladině* údaje teploty a grafických indikátorů

The controller displays *bath temperature and level data* between the temperature and level

hladiny. Horní řádek ukazuje teplotu a hladinu co jsou teď na stroji a spodní řádek pak požadované hodnoty.

graphic indicators. The top line displays the temperature and level that are currently achieved in the machine, and the bottom line displays the desired values.

2.1.6.4. **Kroky programu a vstřik pracích prostředků**—Když program začíná, kontrolér ukazuje prvních šest kroků v *Seznam kroků programu* na spodní levé oblasti obrazovky. Jestli program má více kroků než může být ukázáno současně, jejich seznam roluje a ukáže více kroků až po skončení předchozích. Běžící krok je zvýrazněn.

Seznam naprogramovaných *Vstřikování pracích prostředků* nahradí seznam kroků programu během každého vstřiku a to se zvýrazněným políčkem chemikálie (pracího prostředku), která je právě aplikována.

Formula Steps and Chemical Injection—When a formula begins, the controller displays the first six steps in the *formula steps list* in the lower left area of the screen. If the program contains more steps than can be displayed at one time, the list scrolls to display more steps as the earlier ones end. The current step is highlighted.

The list of programmed *chemical injections* replaces the formula steps list during each injection, with a highlight box on the chemical that's currently injecting.

2.1.7. Vylož stroj

Když program skončí, zazní signál operátora a stroj zobrazí hlášení, že čeká na vyprázdnění (viz. Obrázek 15). Proveď proceduru podobnou té uvedené dole pro vyložení zboží.

Unload the Machine

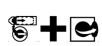
When the formula ends, the operator signal sounds and the machine displays a message that it is waiting to discharge (see Figure 15). Use a procedure similar to the one outlined below to unload the goods.

Obrázek [Figure] **15: Typická zpráva když program skončí [Typical Message when Formula Ends]**



2.1.7.1. **Pro jakoukoliv *Koncový kód***—Kontrolér Mark VI ti dovolí programovat jednu ze čtyř možných akcí pro zakončení programu: *Zastavený*, *Reversující při prací rychlosti*, *Otáčející se při vypouštěcí rychlosti*, nebo *Máchání*. Použij tu samou vykládací proceduru pro programy jež provádějí první tři akce. Pro čtvrtou akci musíš mít vybavení k proceduře popsané v Sekce 2.1.7.2.

For any *End Code*—The Mark VI controller allows you to program one of four possible actions for the end of the formula: *stopped*, *reversing at wash speed*, *turning at drain speed*, or *tumbling*. You use the same unloading procedure for formulas using the first three actions. For the fourth action, you also have the option of using the procedure described in Section 2.1.7.2.

Displej nebo akce [Display or Action]	**Vysvětlení**	**Explanation**
	Vypni 3-fázový obvod, signál operátora, zastav jakýkoliv pohyb koše. Toto tlačítko také odemkne dveře a tak je můžeš otevřít.	Remove power from the 3-wire circuit, silence the operator signal, and stop any basket motion in progress. This button also unlocks the door so you can open it.
	Také můžeš vypnout 3-fázový obvod, signál operátora a zastavit pohybující se koš jakýmkoliv z těchto tlačítek. Ale, když použiješ jakékoliv z těchto tlačítek, tak budeš potřebovat odblokovat dveře pomocí  předtím než je otevřeš. Při použití kteréhokoli z těchto tlačítek k ukončení programu s *Koncový kód 3* (viz. Sekce 2.1.7.2), se program ukončí a nemůže se v něm pokračovat.	You can also remove power from the 3-wire circuit, silence the operator signal, and stop any basket motion that was in progress with any of these buttons. However, if you use any of these buttons, you'll still need to unlock the door with  before you can open it. If you use any of these buttons to stop a formula with *end code 3* (see Section 2.1.7.2), the formula is terminated and cannot be resumed.
	Otevři dveře pro vykládku.	Open the door for unloading.

2.1.7.2. pro koncový kód 3 (*Máchání*)—

Koncový kód 3 (*Máchání*) ti umožní otevřít dveře a vyjmout zboží, pak zavři dveře a dokonči máchání pro vyjmutí dalšího zboží z koše.

For End Code 3 (*Tumbling*)—

End code 3 (*Tumbling*) allows you to open the door and remove some of the goods, then close the door and resume tumbling to loosen more goods from the basket.

Displej nebo akce [Display or Action]	Vysvětlení	Explanation
	Vypni 3-fázový obvod, signál operátora, zastav jakýkoliv pohyb koše. Toto tlačítko také odemkne dveře a tak je můžeš otevřít.	Remove power from the 3-wire circuit, silence the operator signal, and stop any basket motion in progress. This button also unlocks the door so you can open it.

Když koš zastaví, otevři dveře a vyjmi jen některé kusy nebo všechno zboží ze stroje.

When the basket stops turning, open the door and remove some or all of the goods from the machine.

Displej nebo akce [Display or Action]	Vysvětlení	Explanation
+	Otevři dveře pro vykládku.	Open the door for unloading.

Vyjmi požadovanou část z dávky.

Remove any desired portion of the load.

Displej nebo akce [Display or Action]	Vysvětlení	Explanation
+	Zavři dveře.	Close the door.
①	Dokončuje máchání bez signálu operátora. Máchání pokračuje po další dvě minuty, nebo než zmáčkneš .	Resumes the tumbling action without the operator signal. Tumbling continues for another two minutes, or until you press .

— Konec BICWCO03 —

— End of BICWCO03 —

Kapitola 3 Signály a chyby

Chapter 3 Signals and Errors

BICWCT04 (Published) Book specs- Dates: 20070515 / 20070515 / 20080521 Lang: CZE01 Applic: CWS

3.1. Zásah operátora

Jakmile program nastartuje, stroj obvykle běží automaticky. Stroj signalizuje zvukem jestliže operátor potřebuje něco rozhodnout, nebo udělat něco ručně. Nejběžnější důvod, že je třeba obsloužit stroj je v mnoha případech chyba a pak ruční přidání chemikálií (pracích prostředků).

Operator Intervention

Once a formula starts, the machine usually runs automatically. The machine will sound the signal if an operator needs to make a decision or do something manually. The most common reasons you'll need to attend to the machine are errors, and to manually add chemicals in some cases.

3.1.1. Chyba ve spojitosti se signálem operátora

Signál operátora zazní a signálka bliká, když stroj zastaví tato chyba. Tato chyba obvykle vypne třífázový obvod a spustí bezpečnostní vibrační spínač, nebo způsobí nefunkčnost měniče co řídí motor. Obrázek 16 se objeví když je displeji chyba vibračního spínače.

Error with Operator Signal

The operator signal will sound and the beacon will flash if an error causes the machine to stop. These errors usually disable the three-wire circuit, and include a tripped vibration switch or a malfunction of the inverter that controls the motor. Figure 16 shows how a vibration switch error appears on the display.

Obrázek [Figure] **16: Typická chyba v souvislosti se signálem operátora [Typical Error with Operator Signal]**



Pro pokračování programu vypni signál a oprav příčinu chyby. Pak restartuj program.

To resume the formula, silence the signal and correct the cause of the error. Then, restart the formula.

Displej nebo akce [Display or Action]	Vysvětlení	Explanation
	Tlačítko Cancel na klávesnici zastaví stroj, vypne bzučák signálu operátora a zhasne signálku. Musíš restartovat program od začátku.	The Cancel key on the keypad stops the machine, silences the operator signal buzzer, and turns off the signal light. You'll have to restart the formula from the beginning.

Oprav příčinu chyby. Jestli nerozumíš jak vyřešit problém , nechtˇ někdo zkontroluje referenční manuál stroje.

Correct the cause of the error. If you don't know how to fix the problem, have someone check the reference manual for the machine.

①	Opravíš-li chybu, pak Start tlačítko pokračuje v programu od momentu zastavení. Způsobil-li chybu vibrační spínač, tak stroj provede distribuční krok aby rozmístil zboží po obvodě koše, pak pokračuje v přerušeném kroku vypouštění.	If you've corrected the error, the Start button resumes the formula where it stopped. If the vibration switch caused the error, the machine goes through a distribution sequence to spread the goods around the basket, then resumes the interrupted extract step.

3.1.2. Signál operátora pro chemikálie (prací prostředky)

Stroj může řídit automatický čerpadlový systém pracích prostředků, nebo ti signalizovat ruční přidání chemikálií. Displej (Obrázek 17) hlásí to samé v jiném případě, ale signál operátora zazní jen je –li naprogramován.

Operator Signal for a Chemical

This machine can control an automatic chemical pump system, or it can signal you to add chemicals manually. The display (Figure 17) appears the same in either case, but the operator signal sounds only if the

signal is programmed.

Je-li program nastaven aby řídil čerpadlo pracích prostředků, displej ukáže číslo naprogramovaného ventilu pro chemikálie, název chemikálie a čas vstřiku. Čas vstřiku, ukázaný napravo na displeji chemikálií, začíná odpočítávat ihned se začátkem vstřiku.

If the formula is programmed to control a chemical pump system, the display shows the programmed chemical valve number, chemical name, and injection time. The injection time, shown at the right end of the chemical display, begins counting down immediately when the chemical injection begins.

Je-li program nastaven aby ti signalizoval ruční přidání chemikálie, stroj bude běžet automaticky až do doby potřeby chemikálie, pak stroj zastaví, počká na tebe než přidáš a dokončí operaci. Displej se přepne a ukáže ti kterou chemikálii přidat, ale čítač doby vstřiku běží jedině když zrušíš signál operátora.

If the formula is programmed to signal you to manually add chemicals, the machine will operate automatically until it needs a chemical, then the machine stops and waits for you to add the chemical and resume operation. The display changes to show you which chemical to add, but the injection time counter runs only after you cancel the operator signal.

Obrázek [Figure] **17: Pohled na vstřik pracích prostředků na běžícím displeji [Chemical Injection View on Run Display]**



Displej nebo akce [Display or Action]	**Vysvětlení**	**Explanation**
Potom co jsi přidal chemikálii,		After you've added the chemical,
	Zruší signál operátora a nastartuje čítač času vstřikování.	cancels the operator signal and starts the injection time counter.

— Konec BICWCT04 —

— End of BICWCT04 —

Français 3

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Guide de l’opérateur [Operator Guide]—

StaphGuard® Laveuse-essoreuse avec contrôleur Mark VI [StaphGuard® Washer-extractor with Mark VI Controller]

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Chapitre 1 Contrôles

Chapter 1 Controls

BICWCO02 (Published) Book specs- Dates: 20070515 / 20070515 / 20100405 Lang: FRE01 Applic: CWS

1.1. Contrôles sur Marque VI Non basculanteles laveuses-essoreuses

Se réfère à d'autres chapitres de ce document (Section 1.1.2 à Section 1.1.4), pour l'emplacement et les fonctions basiques des contrôles individuels. N'utilisez pas ce document à titre d'instructions pour faire fonctionner la machine.

Controls on Mark VI Non-Tilting Washer-extractors

Refer to other parts of this document (Section 1.1.2 through Section 1.1.4) for the location and basic function of individual controls. Don't use this document as instructions for operating the machine.

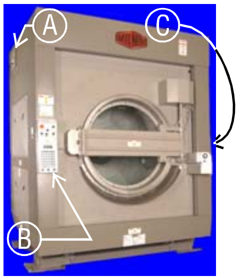
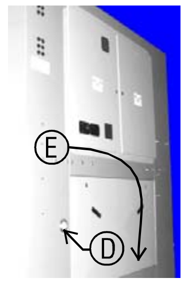
1.1.1. Que sont les Contrôles ?

Les principaux contrôles pour une utilisation normale se trouvent sur le tableau de commande avant (). Les autres contrôles et connexions se trouvent ailleurs sur la machine, comme cela est décrit ici.

Where are the Controls?

The essential controls for normal operation are located on the front control panel (Figure 1). Additional controls and connections are located elsewhere on the machine, as described here.

Illustration [Figure] **1: Emplacement des contrôles [Locations of Controls]**

Vue avant gauche [Front Left View]	Vue arrière [Rear View]	Légende [Legend]
		**A.** Microprocesseur de l'armoire de commande (68036F_B montré) [Microprocessor control box (68036F_B shown)] **B.** Panneau de commande [Control panel] **C.** Bouton de rinçage manuel [Manual supply flush button] **D.** Contrôle de la pression du système hydraulique de la porte pour le chargement [Hydraulic pressure gauge for loading door] **E.** Manomètre du système de basculement (à l'arrière du panneau inférieur arrière) [Air pressure gauge for tilt system (behind lower rear panel)]

1.1.2. Où dois-je connecter le Système de Stockage des Données ?

Le boîtier du microprocesseur se trouve dans le coin supérieur arrière de la machine, panneau gauche (voir Illustration 1) et contient une connexion DIN pour les communications sérielles. Utilisez cette connexion, marquée comme indiqué dans Illustration 2, avec un appareil sériel de transfert de données pour enregistrer ou restaurer la programmation de la machine et la mémoire de configuration.

Where do I Connect the Data Storage Device?

The microprocessor box in the upper rear corner of the machine left side panel (see Figure 1) contains a DIN-type connection for serial communications. Use this connection, labelled as shown in Figure 2, with a serial data transfer device to save or restore machine programming and configuration memory.

Illustration [Figure] **2: Connexion sérielle pour le transfert des données [Serial Connection for Data Transfer]**



1.1.3. Que sont les Organes de Contrôle ?

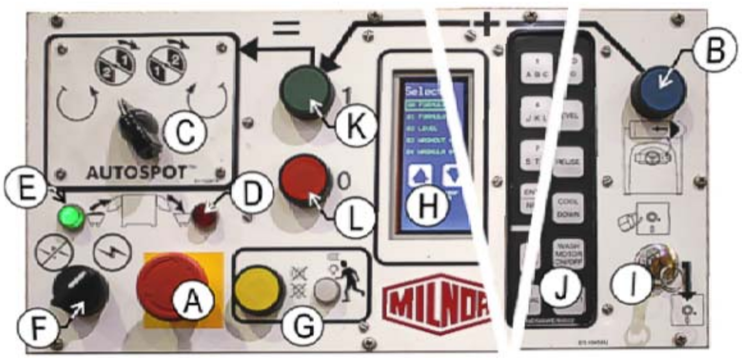
Les organes de contrôle primaires sont nécessaires pour faire démarrer et arrêter la machine, sélectionner les formules de lavage et contrôler le fonctionnement de la machine.

What are the Operating Controls?

The primary operating controls are required to start and stop the machine, select wash formulas, and monitor machine operation.

Illustration [Figure] **3: Marque VI Contrôles latéraux Staph Guard [Mark VI Staph Guard Soil Side Controls]**

Panneau de commande [Control Panel]



Légende [Legend]

- **A.** *Arrêt d'urgence* bouton [*Emergency stop* button]
- **B.** *Déverrouillage de la porte* bouton [*Door unlock* button]
- **C.** *Sélecteur Jog/Autospot* interrupteur [*Jog/Autospot selector* switch]
- **D.** *Contrôle côté propre* indicateur [*Control on clean side* indicator]
- **E.** *Contrôle côté sale* indicateur [*Control on soil side* indicator]
- **F.** *Interrupteur principal* pour l'alimentation [*Master switch* for power]
- **G.** boutons *signal opérateur* et *signal annulation* [*Operator signal* and *signal cancel* button]
- **H.** Ecran graphique à cristaux liquides [Liquid crystal graphic display]
- **I.** *Interrupteur Démarrage/Programme* [*Run/Program keyswitch*]
- **J.** Clavier [Keypad]
- **K.** *Démarrage* bouton [*Start* button]
- **L.** *Arrêt* bouton [*Stop* button]

Illustration [Figure] **4: Clavier [Keypad]**



Illustration [Figure] **5: Contrôles latéraux Staph Guard typiques [Typical Staph Guard Clean Side Controls]**

Panneau de commande [Control Panel]	Légende [Legend]
	**A.** *Arrêt d'urgence* bouton [*Emergency stop* button] **B.** *Déverrouillage de la porte* bouton [*Door unlock* button] **C.** *Sélecteur Jog/Autospot* interrupteur [*Jog/Autospot selector* switch] **D.** *Contrôle côté propre* indicateur [*Control on clean side* indicator] **E.** *Contrôle côté sale* indicateur [*Control on soil side* indicator] **F.** *Contrôle de transfert* bouton [*Control transfer* button] **G.** *Jog/spot* bouton [*Jog/spot* button]

Bouton d'arrêt d'urgence—désactive le circuit à trois fils. Une fois commuté, cet interrupteur se verrouille, et vous devez lui faire faire un quart de tour pour qu'il revienne en position normale, afin de permettre à la machine de fonctionner.

Emergency stop button—disables the 3-wire circuit. This switch locks in when pressed, so you must turn it a quarter turn to allow it to return to the normal position to allow the machine to run.

Attention 1: Appuyez immédiatement sur le bouton *arrêt d'urgence* dans toutes les situations

Notice 1: Press the *emergency stop* button immediately in any emergency situation.

d'urgence. Le fait d'appuyer sur ce bouton désactive le circuit à trois fils, ce qui arrête la machine et ouvre l'évacuation.

- Lorsque vous réenclenchez ce bouton, vous pouvez soit annuler soit reprendre la formule de lavage interrompue. La formule reprend là où elle avait été interrompue ou au début du bain précédent, en fonction de l'état d'avancement du programme lorsque le bouton *arrêt d'urgence* fut enfoncé.

Interrupteur principal pour l'alimentation (/)—Coupe l'alimentation du système de contrôle. Si vous fermez l'interrupteur *Interrupteur principal* () alors qu'une formule est en cours, le résultat immédiat est similaire au fait d'appuyer sur le bouton *arrêt d'urgence* : la machine s'arrête et l'évacuation s'ouvre. A l'inverse du bouton *arrêt d'urgence*, une fois la machine remise en marche, la formule recommence au début de l'étape au cours de laquelle l'alimentation a été coupée, sans injection de produits chimiques toutefois.

Signal opérateur, bouton d'annulation ()—annule le *signal opérateur*. Appuyez sur ce bouton pour couper le son de la sonnette et éteindre le témoin lumineux *signal opérateur* (voir infra) ou pour permettre l'injection d'un produit chimique programmé nécessitant un signal avant injection.

Signal lumineux opérateur—indique que la machine a rencontré une erreur ou que l'opérateur doit effectuer une action, comme par exemple appuyer sur le bouton *démarrage* ou décharger la machine. Le circuit *signal opérateur* comporte une sonnette à l'arrière du panneau de commande, et peut comporter une balise lumineuse en option, distincte du panneau de commande

Ecran LCD—affiche des informations et des conseils relatifs à l'utilisation de la machine. Ces informations changent en fonction de l'état de la machine et de la fonction sélectionnée par l'opérateur.

Clavier—permet à l'opérateur de communiquer avec le système de contrôle de la machine. Le clavier comporte trois zones : des touches alphanumériques, des touches générales et des touches spécifiques à une fonction.

This disables the 3-wire circuit, which stops all machine operation and causes the drain to open.

- When you reset this button, you have the option of cancelling or resuming the interrupted formula. The formula resumes where it was interrupted or at the beginning of the previous bath step, depending on the operation in progress when the *emergency stop* button was pressed.

Master power switch (/)—removes power from the control system. If you turn the *master switch* off () while a formula is running, the immediate result is similar to pressing the *emergency stop* button: the machine stops and the drain opens. Unlike the *emergency stop* button, resumed formulas start at the beginning of the step in which power was lost, but chemicals are not injected in the resumed step.

Operator signal cancel button ()—cancels the *operator signal*. Press this button to silence the buzzer and turn off the *operator signal* light (see below), or to allow injection of a chemical programmed to require a signal before injection.

Operator signal light—indicates that the machine has encountered an error or that the operator must perform some action, such as pressing the *start* button or unloading the machine. The *operator signal* circuit includes a buzzer behind the control panel, and may include an optional beacon light mounted separately from the control panel.

Liquid crystal graphic display—displays information and help about the machine. The information on the display changes according to the status of the machine and the function selected by the operator.

Keypad—allows the operator to communicate with the machine control system. The keypad is divided into three areas: alphanumeric buttons, general buttons, and function-specific buttons.

Chaque touche peut effectuer plus d'une fonction, en fonction de la situation en cours de la machine. Certaines touches sont également utilisées en combinaisons, en vue de fonctions supplémentaires.

Each button may perform more than one function, based on the current machine status. Some buttons are also used in combinations for additional functions.

Bouton de démarrage ( )—lance la formule de lavage sélectionnée. Le bouton *démarrage* alimente le circuit à trois fils permettant à la machine de fonctionner.

Start button ( )—starts the selected wash formula. The *start* button energizes the 3-wire circuit to allow the machine to operate.

Bouton d'arrêt ( )—arrête le fonctionnement de la machine. A l'instar du bouton *arrêt d'urgence*, le bouton *arrêt* désactive le circuit à trois fils. Toutefois, le bouton *arrêt* ne nécessite pas un ré-enclenchement manuel après avoir été utilisé.

Stop button ( )—stops machine operation. Like the *emergency stop* button, the *stop* button disables the 3-wire circuit; however, the *stop* button doesn't require you to manually reset it after use.

Interrupteur à clé Démarrage/Programme (/)—la position *Programme* permet notamment de modifier la configuration de la machine et les formules de lavage. En position normale, *Démarrage*, les formules et les configurations sont protégées, et les formules peuvent être lancées.

Run/Program keyswitch (/)—in the *Program* position, allows changes to machine configuration and wash formulas, among other actions. In the normal *Run* position, formulas and configuration are protected and formulas can be run.

1.1.4. A quoi sert cet interrupteur ?

D'autres boutons et commutateurs sont utilisés pour contrôler d'autres fonctions standard et optionnelles de la machine. Ces divers contrôles sont présentés et décrits dans cette section.

What does this Switch do?

Other buttons and switches are used to control additional standard and optional machine functions. These miscellaneous controls are located and described in this section.

Mildata/interrupteur de sélection local (Illustration 6)—situé sur le microprocesseur de l'armoire de commande (voir Illustration 1), et permet à la machine de communiquer avec un réseau Mildata. Un réseau Mildata relie plusieurs machines entre elles et leur permet de partager des formules de lavage et d'autres données avec l'ordinateur Mildata. Lorsque cet interrupteur est en position Mildata ( ) et que vous introduisez un numéro de formule, la machine demande le contenu de la formule à l'ordinateur Mildata. Lorsque cet interrupteur est sur Local ( ), seules les formules présentes dans la machine sont disponibles.

Mildata/Local selector switch (Figure 6)—located on the microprocessor control box (see Figure 1), allows the machine to communicate with a Mildata network. A Mildata network connects several machines together and allows them to share wash formulas and other data with the Mildata computer. When this switch is in the *Mildata* position ( ) and you enter a formula number, the machine requests the contents of the formula from the Mildata computer. When set to the *Local* position ( ), only formulas present **in the machine** are available.

Illustration [Figure] **6: Mildata/interrupteur commutateur local [Mildata/Local Selector switch]**



Bouton de rinçage manuel (Illustration 7)—Sur les machines équipées d'un injecteur d'approvisionnement en option, appuyez sur ce bouton pour pulvériser l'eau dans l'injecteur d'approvisionnement pour rincer les résidus chimiques se trouvant encore dans le tambour. Si vous ajoutez manuellement des produits pendant une formule de lavage, appuyez sur ce bouton pour rincer les résidus de produits chimiques non dilués dans le tuyau d'approvisionnement. Si la machine n'est pas équipée d'un injecteur d'approvisionnement en option, appuyez sur ce bouton pour rincer les arrivées de produits chimiques liquides à l'eau claire.

Manual supply flush button (Figure 7)—On machines equipped with an optional flushing supply injector, press this button to spray water into the supply injector to flush any remaining chemicals into the cylinder. If you manually add supplies during a wash formula, press this button to flush any remaining undiluted chemicals out of the supply chute. If the machine is not equipped with the optional supply injector, press this button to flush the liquid chemical inlets with fresh water.

Illustration [Figure] **7: Bouton de rinçage manuel [Manual Supply Flush button]**



Sélecteur Autospot (Illustration 8)—Certaines machines à cylindre divisé sont équipées de la fonctionnalité *Autospot* pour aider au chargement et au déchargement. Cette fonctionnalité optionnelle permet le positionnement optimal du panier pour l'accès à la poche sélectionnée.

Autospot selector switch (Figure 8)—Some divided-cylinder machines are equipped with the *Autospot* feature to aid in loading and unloading. This optional feature optimally positions the basket for access to the selected pocket.

Illustration [Figure] **8: Sélecteur Autospot [Autospot selector switch]**



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Chapitre 2
Fonctionnement normal

Chapter 2
Normal Operation

BICWCO03 (Published) Book specs- Dates: 20070515 / 20070515 / 20100405 Lang: FRE01 Applic: CWS

2.1. Instructions pour le personnel de l'usine

Operating Instructions for Plant Personnel

2.1.1. Commencez ici par sécurité

Ce document a pour but de vous rappeler à vous qui utilisez cet appareil, ce qu'il faut faire pour l'utiliser correctement. N'essayez pas de l'utiliser avant d'avoir lu le document ou avant qu'un opérateur expérimenté et formé ne vous explique tous les détails.

Start Here for Safety

This document is meant to remind you, the person operating this washer extractor, of what is required to operate this machine. Do not attempt to operate this machine before an experienced, trained operator explains the details to you.



DANGER [2]: Risques multiples—Toute opération effectuée par l'opérateur sans précaution peut tuer ou blesser le personnel, endommager ou détruire la machine, endommager l'installation et/ou annuler la garantie.

DANGER [2]: Multiple Hazards—Careless operator actions can kill or injure personnel, damage or destroy the machine, damage property, and/or void the warranty.



DANGER [3]: Risques d'électrocution et de brûlure électrique—Tout contact avec le courant électrique peut entraîner la mort ou des blessures graves. Du courant électrique est présent à l'intérieur de l'armoire tant que le disjoncteur principal de l'alimentation de la machine n'est pas activé.
Ne pas déverrouiller ou ouvrir les portes des boîtiers électriques.

- Ne pas déverrouiller ou ouvrir les portes des boîtiers électriques.
- Vous devez connaître l'emplacement du disjoncteur principal et l'utiliser en cas d'urgence pour couper le courant de la machine.
- La maintenance doit être exclusivement assurée par des techniciens qualifiés et

DANGER [3]: Electrocution and Electrical Burn Hazards—Contact with electric power can kill or seriously injure you. Electric power is present inside the cabinetry unless the main machine power disconnect is off.

- Do not unlock or open electric box doors.
- Know the location of the main machine disconnect and use it in an emergency to remove all electric power from the machine.
- Do not service the machine unless qualified and authorized. You must clearly understand the hazards and how to avoid them.

agréés. Il est impératif de bien connaître les dangers encourus et la manière de les éviter.

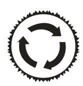


ATTENTION 4 : Danger de Collision, Ecrasement et Pincement—Le contact avec des composants en mouvement normalement protégés par des protections, des couvercles ou des panneaux, peut entraîner vos membres et les casser. Ces composants se mettent en mouvement automatiquement.

CAUTION 4 : Collision, Crushing and Pinch Hazards—Contact with moving components normally isolated by guards, covers, and panels, can entangle and crush your limbs. These components move automatically.

2.1.2. Contrôlez les positions des commutateurs

Check Switch Settings

Affichage ou action **[Display or Action]**	**Explication**	**Explanation**
	Assurez-vous que l’interrupteur à clé *Démarrage / programme* est sur .	Check that the *run/program* keyswitch is at .
	Tous les boutons d’arrêt d’urgence doivent être déverrouillés et être en position *Prêt* pour permettre le fonctionnement de la machine.	All emergency stop buttons must be unlatched and in the *ready* position to allow machine operation.
	Assurez-vous que l’interrupteur principal est sur .	Check that the master switch is at .

2.1.3. Comment charger une machine StaphGuard® ? / How do I Load a StaphGuard® Machine?

Affichage ou action [Display or Action]	Explication	Explanation
	Ouvre la porte extérieur.	Open the outer door.
	Sélectionnez une poche à charger.	Select a pocket to load.
	Alignez la poche sélectionnée avec la porte extérieure.	Align the selected pocket with the outer door.
	Ouvrir la porte intérieure pour la première poche à charger	Open the inner door of the first pocket to load.

Utilise la procédure définie par la gestion pour mettre les articles en machine.

Use the procedure defined by facility management to put the goods in the machine.

	Fermez et verrouillez la porte extérieure.	Close and latch the inner door.
	Ouvrir la porte intérieure pour la première poche à charger	Open the inner door of the first pocket to load.

Vérifiez que toutes les poches sont chargées avec des articles similaires ayant à peu près le même poids.

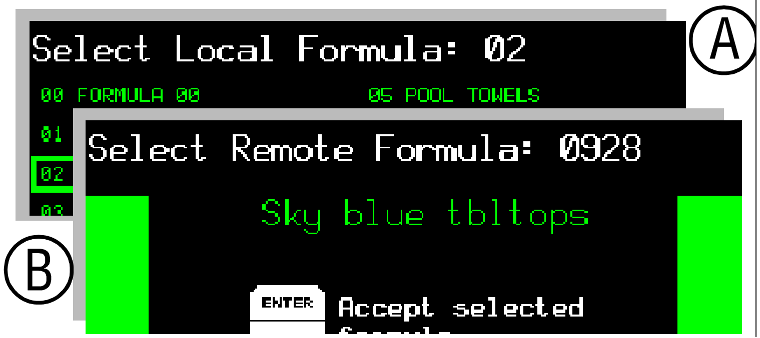
Verify that all pockets are loaded with similar goods to about the same weight.

2.1.4. Comment sélectionner une formule? / How do I Select a Formula?

Le contrôleur Mark VI peut fonctionner en mode *local* ou en mode *Mildata*. En mode *local*, la machine ne communique pas avec d’autres appareils et utilise les formules enregistrées dans la mémoire du contrôleur local. En mode *Mildata*, la machine télécharge et utilise des formules de l’ordinateur Mildata, et actualise fréquemment l’affichage sur l’ordinateur Mildata.

The Mark VI controller can operate in either *local* or *Mildata* mode. In *local* mode, the machine does not communicate with any other devices and runs formulas contained in local controller memory. In *Mildata* mode the machine downloads and runs formulas from the Mildata computer, and frequently updates the display on the Mildata computer.

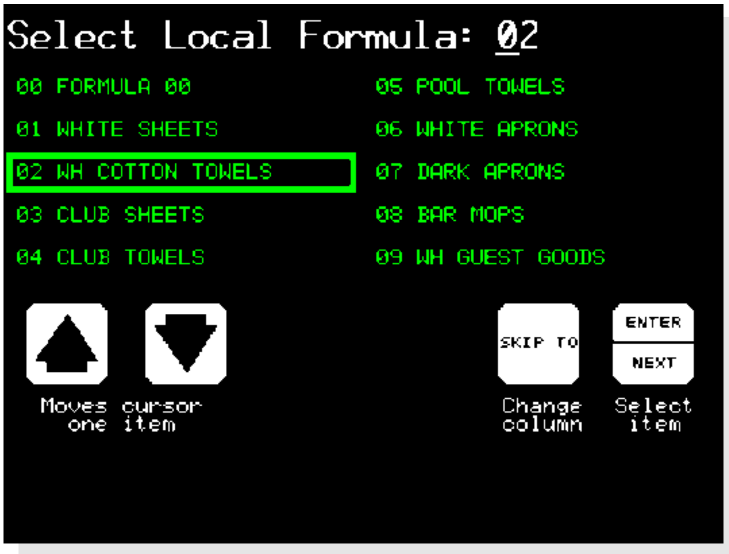
Illustration [Figure] **9: Sélection d'une formule locale ou distante [Selecting a Local or Remote Formula]**

***Sélectionner le programme* Ecran [*Select Program* Displays]**	**Légende [Legend]**
	**A.** Local (Mildata absent ou désactivé) [Local (Mildata not present or enabled)] **B.** Distant (Mildata activé) [Remote (Mildata enabled)]

2.1.4.1. Sélection d'une formule locale—Si la machine ne fait pas partie d'un réseau Mildata, ou si le réseau Mildata n'est pas disponible, vous pouvez faire votre choix parmi les formules de lavage enregistrées dans la mémoire locale de la machine. Utilisez l'écran *Sélectionner une formule locale* (Illustration 10) pour choisir la bonne formule pour les articles se trouvant dans la machine.

Selecting a Local Formula—If the machine is not part of a Mildata network, or if the Mildata network is not available, you can choose from any of the wash formulas stored in local memory on the machine. Use the *Select Local Formula* screen (Figure 10) to choose the correct formula for the goods in the machine.

Illustration [Figure] **10: *Sélectionner une formule locale* Ecran [*Select Local Formula* Screen]**



Affichage ou action [Display or Action]	**Explication**	**Explanation**
0 7	Sélectionnez directement la formule que vous souhaitez (07, par exemple). Lorsque vous introduisez un nombre à deux chiffres, la formule sélectionnée passé au sommet de la colonne de gauche dans cet écran.	Directly selects the formula you want to run (07, for example). When you enter a two-digit number, the selected formula moves to the top of the left column on this screen.
SKIP TO	Permet une alternance dans la colonne, pour la sélection des formules, si cela est nécessaire. Si la formule désirée est visible à l’écran, mais se trouve dans la colonne oppose à la fenêtre de sélection, cette touche permet de déplacer la fenêtre de sélection dans l’autre colonne de formules.	Toggles the column for formula selection if necessary. If the desired formula is visible on the screen, but is in the opposite column from the selection box, this keystroke moves the selection box to the other column of formulas.
↓ / ↑	Permet d’aller à la formule suivante ou précédente dans la colonne actuelle. Si la formule désirée est visible à l’écran et dans la même colonne que la fenêtre de sélection, vous pouvez utiliser ces deux touches pour déplacer la fenêtre de sélection vers le haut ou vers le bas, pour sélectionner la formule.	Move to the next or previous displayed formula in the current column. If the desired formula is visible on the screen and in the same column as the selection box, you can use these two keys to move the selection box down or up to select the formula.

Affichage ou action **[Display or Action]**	**Explication**	**Explanation**
ENTER	Confirme la formule sélectionnée. Mettez la fenêtre de sélection sur la formule que vous souhaitez utiliser, et appuyez ensuite sur ENTER pour continuer normalement.	Confirm the selected formula. Place the selection box on the formula you want to run, then press ENTER to continue with the normal operation procedures.

Supplément 1

Poids de la charge et *Débitmètre*

Débitmètre est disponible sur les laveuses-essoreuses Mark VI équipées de débitmètres optionnels sur les arrivées d'eau. Cela permet au contrôleur Mark VI, après la sélection de la formule, de faire entrer une quantité d'eau proportionnelle au poids des articles introduits. Si vous introduisez un poids de 200 unités lorsque le système vous le demande, la machine utilisera deux fois plus d'eau que si vous aviez introduit un poids de 100 unités. Cette option permet de réaliser une économie d'eau considérable, pour autant que vous introduisiez le poids correct de chaque charge.

Supplement 1

About Load Weight and *Metered Water*

Metered water is available on Mark VI washer-extractors equipped with optional flow meters on the incoming water lines. This feature allows the Mark VI controller to admit a quantity of water proportional to the weight of goods you enter after selecting the formula. If you enter a weight of 200 units when prompted, the machine will use twice as much water as if you entered 100 weight units. This option can save a significant amount of water if you enter accurate weights for each load.

Illustration [Figure] **11: Introduire le poids de la charge pour le débitmètre [Entering Load Weight for Metered Water]**



Affichage ou action [Display or Action]	**Explication**	**Explanation**
4 4 9	Introduisez le poids des articles introduits dans la machine. Le contrôleur de la machine utilise le poids pour déterminer la quantité d'eau nécessaire pour laver les articles dans le cadre de la formule de lavage programmée.	Enter the weight of the goods loaded in the machine. The machine controller uses the weight to determine how much water is needed to wash the goods according to the programmed wash formula.
ENTER	Accepter le poids introduit et continuer.	Accept the entered goods weight and continue.

2.1.4.2. **Sélection d'une formule Mildata**—Si la machine fait partie d'un réseau Mildata et que le réseau est disponible, vous pouvez sélectionner une formule de lavage enregistrée sur l'ordinateur Mildata. Utilisez l'écran *Sélection d'une formule distante* (Illustration 12) pour choisir la formule la plus adaptée aux articles se trouvant dans la machine.

Selecting a Mildata Formula—If the machine is part of a Mildata network and the network is available, you can choose any wash formula stored on the Mildata computer. Use the *Select Remote Formula* screen (Figure 12) to choose the best formula for the goods in the machine.

Remarque 1: Vous pouvez enregistrer jusqu'à 1.000 formules de lavage différentes dans l'ordinateur Mildata. Toutes ces formules seront disponibles pour toutes les laveuses-essoreuses faisant partie du réseau Mildata et disposant de matériel compatible.

Note 1: You can store up to 1000 different wash formulas on the Mildata computer. All of these formulas are available to all washer-extractors that are part of the Mildata network and have compatible hardware.

Illustration [Figure] **12: *Sélection d'une formule distante* Ecran [*Select Remote Formula* Screen]**



Affichage ou action [Display or Action]	**Explication**	**Explanation**
0 9 2 8	Sélectionnez par exemple la formule 928, enregistrée dans l'ordinateur Mildata. Le contrôleur Mark VI demande la formule à l'ordinateur Mildata et affiche le nom de la formule, comme indiqué dans Illustration 12.	Select formula 928 (example) stored on the Mildata computer. The Mark VI controller requests the formula from the Mildata computer and displays the formula name, as shown in Figure 12.
ENTER	Confirme que le nom de formule affiché est bien la formule que vous voulez exécuter. Si la formule affichée n'est pas la bonne pour les articles chargés, appuyez sur CANCEL pour supprimer la formule, et introduisez ensuite un autre numéro de formule.	Confirm that the displayed formula name is the formula you want to run. If the displayed formula isn't the right one for the loaded goods, press CANCEL to clear the formula number, then enter another number.

Après avoir récupéré et vérifié la formule, le contrôleur Mark VI vous demande un *Données de la charge de linge* configuré.

After you've retrieved and verified the formula, the Mark VI controller prompts for any configured *batch data*.

2.1.4.3. Introduction *Codes de la charge de linge Mildata*—Le contrôleur Mark VI utilise une fenêtre similaire, Illustration 13, pour vous demander les champs de données de la charge de linge sélectionnés dans la configuration de la machine (voir la section concernée dans le document BICWCC01). Les données que vous introduisez sont envoyées à l'ordinateur Mildata, pour la production d'un rapport et pour la comptabilité.

Entering *Mildata Batch Codes*—The Mark VI controller uses a screen similar Figure 13 to prompt you for the batch data fields selected in machine configuration (see the related section in document BICWCC01). The data you enter is sent to the Mildata computer for accounting and report generation.

Illustration [Figure] **13: Données de la charge de linge pour l'accomplissement de la formule distante [Batch Data for Remote Formula Operation]**



Poids—le poids de la charge de linge dans la machine. Cette information est généralement utilisée avec d'autres données de la charge de linge pour calculer le montant à facturer au client ou la productivité des employés. Dans les machines équipées de débitmètres optionnels et paramétrées pour les débitmètres, le poids est également utilisé pour déterminer la quantité d'eau nécessaire pour traiter la charge de linge. Cette valeur peut comporter jusqu'à trois chiffres.

Weight—the weight of the batch of goods in the machine. This information is usually used along with other batch data to calculate customer charges or employee productivity. In machines equiped with optional flow meters and configured for metered water, the weight value is also used to determine how much water is required to process the batch. The weight value can be up to three digits.

Code client—Code d'identification pour le client. Cette information peut vous aider à déterminer la quantité de travail fournie par chaque client. Ce code peut comporter jusqu'à 10 chiffres.

Customer Code—the identifying code for the customer. This information can help you determine how much work each customer is submitting. Ten digits are available for customer code.

Numéro d'employé—code d'identification pour l'employé responsable de la charge de linge. Le numéro de l'employé peut comporter jusqu'à 5 chiffres.

Employee Number—the identifying code for the employee responsible for this batch. The employee number may be up to five digits long.

Pièces—nombre de pièces dans la machines.

Pieces—the number of pieces in the

Cette valeur remplace parfois le poids, particulièrement lorsque les factures sont établies à la pièce plutôt qu'au poids. Quatre chiffres sont disponibles pour ce nombre.

machine. This value sometimes replaces the weight value, especially when charges are made by the piece rather than by weight. Four digits are available for the number of pieces.

Numéro de la charge de linge—code d’identification pour plusieurs charges de linge ou clients liés. C’est à vous de choisir : la valeur introduite ici peut représenter un numéro de trajet commun à plusieurs comptes. Un numéro de charge de linge peut compter jusqu’à 10 chiffres.

Lot Number—the identifying code for several related batches or customers. At your discretion, the value entered here might represent a particular route number common to several accounts. A lot number can be up to 10 digits long.

2.1.5. Lancer la formule sélectionnée

Soyez sûr d’avoir effectué les étapes suivantes avant d’aller plus avant dans la procédure.

1. Le chargement de la machine est égal à ou proche de sa capacité établie.
2. Vous avez sélectionné une formule appropriée pour les articles se trouvant dans la machine.
3. Vous avez introduit des données de la charge de linge dans le contrôleur de la machine, pour le débitmètre ou le rapport Mildata.
4. Vous avez fermé la porte.

Start the Selected Formula

Be sure you've completed these steps before you go any further in the operating procedure.

1. You've loaded the machine at or near its rated weight capacity.
2. You've selected a formula that's appropriate for the goods in the machine.
3. You've entered any batch data the machine controller requires for metered water or Mildata reporting.
4. You've closed the door.

Affichage ou action [Display or Action]		Explication	Explanation
	①	Lancer la formule sélectionnée	Start the selected formula.

La machine commence la formule de lavage. Le tambour commence à tourner et la valve d’arrivée d’eau s'ouvre. Lorsque le bon niveau d’eau est atteint, la valve de vapeur peut s’ouvrir pour chauffer le bain. La suite des opérations, à partir de ce point et jusqu’au terme de la formule, est totalement automatique, sauf si un signal a été programmé pour une injection chimique (voir Supplément 2).

The machine begins the wash formula. The basket begins turning and water valves open. When a safe level is achieved, the steam valve may open to begin heating the bath. Operation from this point to the end of the formula is completely automatic unless a signal is programmed with a chemical injection (see Supplement 2).

Supplément 2

Injections chimiques avec signal opérateur

Si vous devez ajuster la quantité d’une injection chimique d’une charge à l’autre, en fonction de facteurs très variables, il est possible de programmer la formule pour arrêter la minuterie et vous signaler la nécessité d’un produit chimique. Ajoutez le produit chimique, puis appuyez sur pour reprendre la formule là où elle s’était arrêtée.

Supplement 2

Chemical Injections with the Operator Signal

If you need to adjust the amount of a chemical injection from load to load depending on highly variable factors, the formula can be programmed to stop the timer and signal you when a chemical is required. Add the chemical, then press to resume the formula.

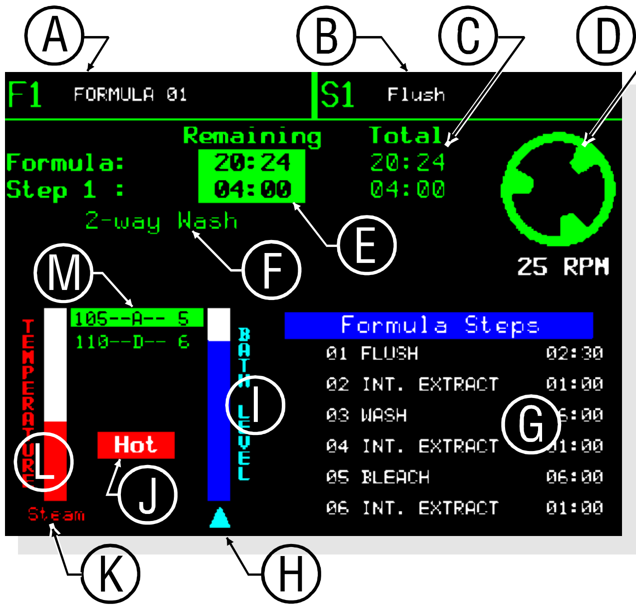
2.1.6. Quelle est la signification de l’affichage de l'écran *Démarrage* ?

Lorsque la formule sélectionnée est en cours, l’affichage de l’écran est similaire à celui présenté sous Illustration 14. Les informations présentées dans cet affichage sont explicitées ci-dessous.

What Does the *Run* Display Tell Me?

While the machine is running the formula you selected, the display appears similar to the one shown in Figure 14. The information shown here is explained below.

Illustration [Figure] **14: Comment lire l’écran *Démarrage* ? [How to Read the *Run* Display]**

Ecran classique [Typical Display]	Légende [Legend]
	**A.** Nom et numéro de la formule [Formula number and name] **B.** Nom et numéro de l'étape [Step number and name] **C.** Durée totale de la formule et étape en cours [Total time for formula and current step] **D.** Graphique de rotation du tambour et de vitesse [Basket rotation graphic and speed] **E.** Durée résiduelle de la formule et de l’étape en cours [Remaining time for entire formula and current step] **F.** Message relatif à l'état de la machine [Machine status message] **G.** Etapes de la formule : numéro, nom et durée [Formula steps: number, name, and duration] **H.** Indicateur de remplissage ou de vidange [Indicator for filling or draining] **I.** Indicateur graphique du niveau du bain [Graphic bath level indicator] **J.** Indicateurs des valves d'eau [Water valves indicators] **K.** Indicateur pour la vapeur optionnelle et les valves de refroidissement [Indicator for optional steam and cooldown valves] **L.** Indicateur graphique de la température du bain [Graphic bath temperature indicator] **M.** Température du bain et données du niveau [Bath temperature and level data]

2.1.6.1. Informations relatives à la formule et à l'étape—La ligne supérieure de l'écran affiche toujours le numéro et le nom de la formule et de l'étape en cours. *numéro de la formule* apparaît dans le coin supérieur gauche de l'écran, suivi de la lettre “F.”. *nom de la formule* suit le nombre.

numéro et nom de l'étape en cours sont affichés à droite des informations relatives à la formule. Le contrôleur Mark VI actualise le numéro et le nom de la formule lorsqu'une formule commence, et au début de chaque étape.

Sous les noms de la formule et des étapes, vous verrez *informations relatives à la durée*. Les nombres (verts) dans la colonne “Total” présentent le temps total requis pour arriver au terme de la formule et des étapes, et ne comprennent pas les facteurs décrits sous Remarque 2. Le contrôleur calcule la valeur “Formule” lorsque la formule commence, et cette valeur ne change pas tant que la formule est en cours. Le contrôleur calcule et affiche la valeur “Etape x” au début de chaque étape.

Les nombres dans la colonne “Durée résiduelle” de l'indication de la durée (chiffres noirs sur fond vert) indiquent le *durée résiduelle* pour la formule et l'étape en cours. Ces nombres indiquent la durée résiduelle **minimum** (voir Remarque 2).

Remarque 2: La durée de certaines étapes de formule de lavage ne peut être estimée, c'est pourquoi le contrôleur arrête la minuterie jusqu'à obtention du résultat exigé. Par exemple, le temps nécessaire à la machine pour se remplir jusqu'au niveau désiré dépend de la pression de l'eau, de la taille de la tuyauterie allant jusqu'à la machine et du nombre de machines qui se remplissent en même temps. En plus du temps nécessaire au remplissage, le temps nécessaire à l'obtention de la température ou le temps nécessaire à un opérateur pour vérifier l'injection chimique est variable. Des messages d'erreur peuvent également arrêter la minuterie.

Le contrôleur affiche le *état de la machine* en cours en dessous du numéro d'étape et de la durée résiduelle. Certains des états possibles de la machine figurent dans Tableau 1. Le cas échéant, les messages d'erreur apparaissent immédiatement sous le message d'état de la machine.

Formula and Step Information—The top line of the display always shows the number and name of the current formula and step. The *formula number* appears in the upper left corner of the display, following the letter “F.”The *formula name* follows the number.

The *step number and name of the current step* are displayed to the right of the formula information. The Mark VI controller updates the formula number and name when a formula starts and at the beginning of each subsequent step.

Below the formula and step names is *time information*. The numbers in the “Total” column (green numbers) show the total time required for the formula and step to run to completion, not including the factors described in Note 2. The controller calculates the “Formula” value when the formula begins, and this value doesn't change while the formula is running. The controller calculates and displays the “Step x” value at the start of each step.

The numbers in the “Remaining” column of the time area (black numbers on a green background) indicate the *time remaining* in the formula and in the current step. These numbers indicate the **minimum** amount of time remaining (see Note 2).

Note 2: The duration of some wash formula events can't be estimated, so the controller stops the timer until a requirement is met. For example, the time required for the machine to fill to the desired level depends on the water pressure to the plant, the size of the piping to the machine, and how many other machines are filling at the same time. In addition to the time required to fill, the time required to achieve temperature or for an operator to verify a chemical injection are variable. Error conditions can also stop the timer.

The controller displays the current *machine status* below the step number and remaining time. Some of the possible machine states are listed in Table 1. Error messages appear immediately below the machine status message when required.

Tableau 1: Messages relatifs à l’état de la machine
[English table follows]

Machine en attente	Temps de pause
Lavage unidirectionnel	Déchargement en attente
Lavage bidirectionnel	Chargement en attente
Trempage	Délai avant mise sous tension
Pré-essorage et essorage final	Vidange aux égouts
Essorage intermédiaire	Vidange de réutilisation
Essorage final	Minuterie arrêtée
Essorage double	Veuillez attendre xx secondes

Table 1: Machine Status Messages

Idle	Coasting
1-way Wash	Waiting to Discharge
2-way Wash	Waiting for Load
Soak	Power-up Delay
Pre+Final Extract	Draining to Sewer
Intermediate Extract	Draining to Reuse
Final Extract	Timer Stopped
Double Extract	Please Wait xx Seconds

2.1.6.2. Rotation du tambour—Le *Graphique de la rotation du tambour* proche du coin supérieur droit de l'écran représente les vitesses relatives du tambour lors du lavage, de la vidange et de l’essorage. Juste sous le graphique de rotation du tambour, le contrôleur affiche la vitesse désirée du tambour en tours par minute (TPM) ou en unités gravitationnelles (G).

Basket Rotation—The *basket rotation graphic* near the upper right corner of the display represents the relative basket speeds in wash, drain, and extract speeds. Immediately below the basket rotation graphic, the controller displays the desired basket speed in either revolutions per minute (RPMs) or in gravitational units (G's).

2.1.6.3. Température et niveau du bain—*Indicateurs des valves d’eau* s’affiche lorsque la valve d’eau correspondante est ouverte.

Le graphique *Indicateur de la température du bain* indique la température approximative dans la machine. La barre verticale d’indication est d’un rouge uni lorsque la température dans la machine atteint le maximum autorisé (205 degrés Fahrenheit-95° Celsius).

L’indicateur de vapeur ou de refroidissement s’affiche sous le graphique de l’indicateur de la température lorsque l’une de ces fonctions optionnelles est activée. “Vapeur” s’affiche lorsque la valve de vapeur est ouverte, et “Refroidissement” s’affiche lorsque la sortie de vapeur est activée.

Le graphique *Indicateur du niveau du bain* indique le pourcentage du niveau désiré qui est atteint. La barre verticale d’indication est bleu

Bath Temperature and Level—*Water valve indicators* appear when the corresponding water valve is open.

The graphic *bath temperature indicator* shows the approximate temperature in the machine. The vertical indicator bar is solid red when the temperature in the machine is at the maximum allowable value of 205 degrees Fahrenheit (95 degrees Celsius).

The steam or cooldown indicator appears below the graphic temperature indicator when either of these optional features is enabled. “Steam” appears when the steam valve is open, and “Cooldown” appears when the cooldown output is enabled.

The graphic *bath level indicator* shows the percentage of the desired level that's achieved. The vertical indicator bar is solid

uni lorsque le niveau programmé est atteint, et blanc uni lorsqu'il n'y a pas d'eau dans la machine.

blue when the programmed level is achieved, and solid white when there is no water in the machine.

Le *Flèche d'indication de la direction du niveau* monte lorsque le niveau réel du bain dans la machine augmente (lorsque la machine se remplit), et baisse lorsque le tuyau de vidange s'ouvre. La flèche n'est pas visible lorsque le niveau est atteint, ni pendant les étapes d'essorage.

The *level direction indicator arrow* points upward when the actual bath level in the machine is increasing (when the machine is filling), and points downward when the drain opens. The arrow is not visible when level is achieved, or during extract steps.

Le contrôleur affiche *température du bain et données du niveau* entre les indicateurs de température et de graphique de niveau. La ligne supérieure affiche la température et le niveau effectivement atteints dans la machine, et la ligne inférieure affiche les valeurs désirées.

The controller displays *bath temperature and level data* between the temperature and level graphic indicators. The top line displays the temperature and level that are currently achieved in the machine, and the bottom line displays the desired values.

2.1.6.4. Etapes de la formule et injection chimique

Etapes de la formule et injection chimique—Lorsqu'une formule commence, le contrôleur affiche les six premières étapes dans la zone inférieure gauche *Liste des étapes de la formule* de l'écran. Si le programme comporte davantage d'étapes que ce qui peut être affiché en une fois, la liste est déroulante, afin d'afficher les étapes suivantes, une fois que les premières étapes sont terminées. L'étape en cours est en surbrillance.

Formula Steps and Chemical Injection—When a formula begins, the controller displays the first six steps in the *formula steps list* in the lower left area of the screen. If the program contains more steps than can be displayed at one time, the list scrolls to display more steps as the earlier ones end. The current step is highlighted.

La liste de *injections chimiques* programmées remplace les étapes de formule pendant chaque injection, avec une surbrillance sur le produit chimique en cours d'injection.

The list of programmed *chemical injections* replaces the formula steps list during each injection, with a highlight box on the chemical that's currently injecting.

2.1.7. Décharger la machine / Unload the Machine

A la fin de la formule, le signal opérateur retentit, et la machine affiche un message précisant le déchargement en attente (voir Illustration 15). Procédez comme indiqué ci-dessous pour décharger les articles.

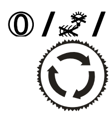
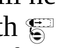
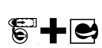
When the formula ends, the operator signal sounds and the machine displays a message that it is waiting to discharge (see Figure 15). Use a procedure similar to the one outlined below to unload the goods.

Illustration [Figure] **15: Message typique affiché à la fin de la formule [Typical Message when Formula Ends]**



2.1.7.1. Pour chaque *Code de fin*—Le contrôleur Mark VI vous permet de programmer une des quatre actions possibles pour la fin de la formule : *arrêt*, *inversion à vitesse de lavage*, *rotation à vitesse de vidange*, ou *séchage*. La procédure de déchargement est la même pour toutes les formules ayant les trois mêmes premières actions. Pour la quatrième action, vous pouvez appliquer la procédure décrite sous Section 2.1.7.2.

For any *End Code*—The Mark VI controller allows you to program one of four possible actions for the end of the formula: *stopped*, *reversing at wash speed*, *turning at drain speed*, or *tumbling*. You use the same unloading procedure for formulas using the first three actions. For the fourth action, you also have the option of using the procedure described in Section 2.1.7.2.

Affichage ou action [Display or Action]	**Explication**	**Explanation**
	Coupez l’alimentation du circuit à trois fils, coupez le signal opérateur et arrêtez le mouvement du tambour. Ce bouton déverrouille également la porte, de sorte que vous puissiez l’ouvrir.	Remove power from the 3-wire circuit, silence the operator signal, and stop any basket motion in progress. This button also unlocks the door so you can open it.
	Vous pouvez également couper l'alimentation du circuit à trois fils, couper le signal opérateur et arrêter le mouvement du tambour en cours avec l'un de ces boutons. Toutefois, si vous utilisez l'un de ces boutons, vous devrez toujours déverrouiller la porte avec  avant de pouvoir l’ouvrir. Si vous utilisez l’un de ces boutons pour arrêter une formule avec *fin du code 3* (voir Section 2.1.7.2), la formule est clôturée et ne peut reprendre.	You can also remove power from the 3-wire circuit, silence the operator signal, and stop any basket motion that was in progress with any of these buttons. However, if you use any of these buttons, you'll still need to unlock the door with  before you can open it. If you use any of these buttons to stop a formula with *end code 3* (see Section 2.1.7.2), the formula is terminated and cannot be resumed.
	Ouvre la porte pour le déchargement.	Open the door for unloading.

2.1.7.2. Pour terminer le code 3 (*Séchage*)— For End Code 3 (*Tumbling*)—

La fin du code 3 (*Séchage*) vous permet d'ouvrir la porte et de sortir certains articles, pour ensuite refermer la porte et relancer le séchage pour donner plus d'espace aux autres articles dans le tambour.

End code 3 (*Tumbling*) allows you to open the door and remove some of the goods, then close the door and resume tumbling to loosen more goods from the basket.

Affichage ou action **[Display or Action]**	**Explication**	**Explanation**
	Coupez l'alimentation du circuit à trois fils, coupez le signal opérateur et arrêtez le mouvement du tambour. Ce bouton déverrouille également la porte, de sorte que vous puissiez l'ouvrir.	Remove power from the 3-wire circuit, silence the operator signal, and stop any basket motion in progress. This button also unlocks the door so you can open it.

Lorsque le tambour arrête de tourner, ouvrez la porte enlevez tout ou partie des articles.

When the basket stops turning, open the door and remove some or all of the goods from the machine.

+	Ouvre la porte pour le déchargement.	Open the door for unloading.

Retirez la portion souhaitée de la charge.

Remove any desired portion of the load.

+	Fermer la porte.	Close the door.
①	Reprend le séchage sans signal opérateur. Le séchage continue pendant deux minutes, ou jusqu'à ce que vous appuyiez sur .	Resumes the tumbling action without the operator signal. Tumbling continues for another two minutes, or until you press .

— Fin BICWCO03 —

— End of BICWCO03 —

Chapitre 3 Signaux et erreurs

Chapter 3 Signals and Errors

BICWCT04 (Published) Book specs- Dates: 20070515 / 20070515 / 20100405 Lang: FRE01 Applic: CWS

3.1. Intervention de l’opérateur

Lorsqu’une formule démarre, la machine fonctionne généralement de façon automatique. La machine enclenchera le signal si un opérateur doit prendre une décision ou effectuer une opération manuelle. Les raisons d’intervention les plus fréquentes sont une erreur ou l'injection manuelle de produits chimiques.

Operator Intervention

Once a formula starts, the machine usually runs automatically. The machine will sound the signal if an operator needs to make a decision or do something manually. The most common reasons you'll need to attend to the machine are errors, and to manually add chemicals in some cases.

3.1.1. Erreur avec signal opérateur

Le signal opérateur s’enclenchera et le signal lumineux clignotera si une erreur a entraîné l’arrêt de la machine. Deux erreurs coupent la plupart du temps l’alimentation du circuit à trois fils, à savoir l'enclenchement du capteur de vibrations et la panne du variateur de vitesse. Illustration 16 indique comment une panne du sélecteur de vibration est affichée à l'écran.

Error with Operator Signal

The operator signal will sound and the beacon will flash if an error causes the machine to stop. These errors usually disable the three-wire circuit, and include a tripped vibration switch or a malfunction of the inverter that controls the motor. Figure 16 shows how a vibration switch error appears on the display.

Illustration [Figure] **16: Erreur typique avec signal opérateur [Typical Error with Operator Signal]**



Pour reprendre la formule, coupez le signal et remédiez à la cause de l'erreur. Relancez ensuite la formule.

To resume the formula, silence the signal and correct the cause of the error. Then, restart the formula.

Affichage ou action **[Display or Action]**	**Explication**	**Explanation**
	La touche ‘Cancel’ du clavier arrête la machine, coupe le signal opérateur et coupe le témoin lumineux. Vous devrez relancer la formule à son début.	The Cancel key on the keypad stops the machine, silences the operator signal buzzer, and turns off the signal light. You'll have to restart the formula from the beginning.

Remédiez à la cause de l’erreur. Si vous ne savez pas comment remédier au problème, demandez à quelqu’un de contrôler le manuel de référence de la machine.

Correct the cause of the error. If you don't know how to fix the problem, have someone check the reference manual for the machine.

①	Si vous avez remédié à l’erreur, le bouton 'Start' permet de reprendre la formule là où elle s'était arrêtée. Lorsque le sélecteur de vibration est à l'origine de l'erreur, la machine effectue une séquence de distribution afin d'étendre les articles dans le tambour, puis reprend ensuite l'étape d’essorage interrompue.	If you've corrected the error, the Start button resumes the formula where it stopped. If the vibration switch caused the error, the machine goes through a distribution sequence to spread the goods around the basket, then resumes the interrupted extract step.

3.1.2. Signal opérateur pour un produit chimique

Cette machine peut contrôler un système de pompe à produits chimiques automatique, ou vous signaler d’ajouter les produits chimiques

Operator Signal for a Chemical

This machine can control an automatic chemical pump system, or it can signal you to add chemicals manually. The display

manuellement. L’affichage (Illustration 17) est le même dans les deux cas, mais le signal opérateur ne retentit que s'il a été programmé.

(Figure 17) appears the same in either case, but the operator signal sounds only if the signal is programmed.

Si la formule a été programmée pour contrôler un système de pompe à produits chimiques, l'écran affiche le numéro de valve programmé pour le produit chimique, le nom du produit chimique et le moment d'injection. Le moment d’injection, affiché du côté droit de l'écran dédié aux produits chimiques, implique un décompte lorsque l'injection commence.

If the formula is programmed to control a chemical pump system, the display shows the programmed chemical valve number, chemical name, and injection time. The injection time, shown at the right end of the chemical display, begins counting down immediately when the chemical injection begins.

Si la formule a été programmée pour vous signaler d'ajouter manuellement les produits chimiques, la machine fonctionnera automatiquement jusqu’à ce qu’elle ait besoin d’un produit chimique, auquel cas elle s'arrêtera et attendra que vous ajoutiez le produit chimique nécessaire, pour ensuite reprendre son cycle. L’affichage change pour vous indiquer quel produit chimique ajouter, mais la minuterie d'injection ne s'enclenche qu'après avoir désactivé le signal opérateur.

If the formula is programmed to signal you to manually add chemicals, the machine will operate automatically until it needs a chemical, then the machine stops and waits for you to add the chemical and resume operation. The display changes to show you which chemical to add, but the injection time counter runs only after you cancel the operator signal.

Illustration [Figure] **17: Injection des produits chimiques : Ecran de visualisation du déroulement du programme [Chemical Injection View on Run Display]**



Affichage ou action [Display or Action]	**Explication**	**Explanation**
Après avoir ajouté le produit chimique,		After you've added the chemical,
	annulez le signal opérateur et lancez la minuterie d'injection.	cancels the operator signal and starts the injection time counter.

— Fin BICWCT04 —

— End of BICWCT04 —

Español 4

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Guía del operario [Operator Guide]—

StaphGuard® Lavadora-extractora con el controlador MarkVI [StaphGuard® Washer-extractor with Mark VI Controller]

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Lea el Manual de seguridad

PELLERIN MILNOR CORPORATION POST OFFICE BOX 400, KENNER, LOUISIANA 70063 - 0400, U.S.A.

Aplicable Milnor® productos por número de modelo: [Applicable Milnor® products by model number:]

42044SP2 42044SP3 60044SP2 60044SP3 72044SP2

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Capítulo 3. Señales y errores

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Capítulo 1 Controles

Chapter 1 Controls

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1.1. Controles en las lavadoras-extractoras No inclinables Mark VI

Refiérase a otras partes de este documento, de (Sección 1.1.2 hasta Sección 1.1.4), para la localización y explicación de las funciones básicas de los controles individuales. No use este documento, como instrucción, para operar la máquina.

Controls on Mark VI Non-Tilting Washer-extractors

Refer to other parts of this document (Section 1.1.2 through Section 1.1.4) for the location and basic function of individual controls. Don't use this document as instructions for operating the machine.

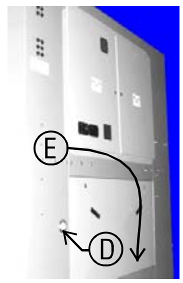
1.1.1. ¿Dónde están los controles?

Los controles esenciales para la operación normal de la máquina están situados en el panel de control, en el frente de la máquina (Figura 1). Los controles adicionales y sus conexiones están situados en otra parte de la máquina, en el lugar que aquí se describe.

Where are the Controls?

The essential controls for normal operation are located on the front control panel (Figure 1). Additional controls and connections are located elsewhere on the machine, as described here.

Figura [Figure] **1: Ubicación de los controles [Locations of Controls]**

Vista frontal izquierda [Front Left View]	Vista de la parte trasera [Rear View]	Leyenda [Legend]
		**A.** Compartimiento para el microprocesador (68036F_B es mostrado) [Microprocessor control box (68036F_B shown)] **B.** Panel de mandos [Control panel] **C.** Botón para inyectar manualmente los productos químicos [Manual supply flush button] **D.** Indicador de presión hidráulica para la puerta de cargar [Hydraulic pressure gauge for loading door] **E.** Indicador de presión de aire para el sistema de inclinación (detrás del panel inferior, en la parte trasera) [Air pressure gauge for tilt system (behind lower rear panel)]

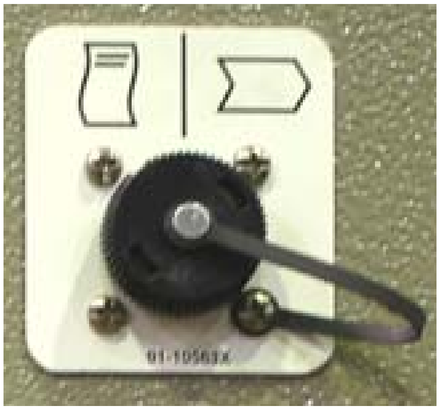
1.1.2. ¿Dónde yo conecto el dispositivo para archivar información?

El compartimiento que contiene el microprocesador situado en la esquina superior, detrás, en el panel de la izquierda (vea Figura 1) tiene un enchufe DIN para comunicaciones en serie. Use este enchufe, nombrado como se muestra en Figura 2, para conectar el dispositivo que permita transferir información. En un futuro esta información pudiera ser necesaria para reponer la programación y configuración.

Where do I Connect the Data Storage Device?

The microprocessor box in the upper rear corner of the machine left side panel (see Figure 1) contains a DIN-type connection for serial communications. Use this connection, labelled as shown in Figure 2, with a serial data transfer device to save or restore machine programming and configuration memory.

Figura [Figure] **2: Conexión en serie para la transferencia de información [Serial Connection for Data Transfer]**



1.1.3. ¿Qué son los controles de operación? What are the Operating Controls?

Los controles fundamentales para la operación de la máquina son los que inician y detienen el movimiento, seleccionan las distintas fórmulas y vigilan la operación de la máquina.

The primary operating controls are required to start and stop the machine, select wash formulas, and monitor machine operation.

Figura [Figure] **3: Controles en el lado de carga (Staph Guard, Mark VI) [Mark VI Staph Guard Soil Side Controls]**

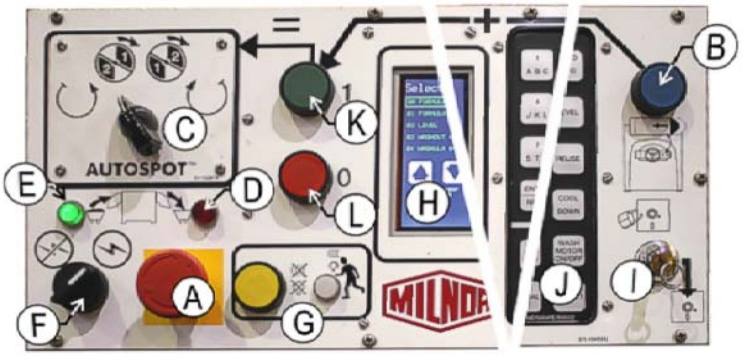
Panel de mandos [Control Panel]	Leyenda [Legend]
	**A.** Botón para *parar de emergencia* [*Emergency stop* button] **B.** Botón para *destrabar la puerta* [*Door unlock* button] **C.** Interruptor para *trote corto/selector de Autospot* [*Jog/Autospot selector* switch] **D.** Indicador *de control en el lado de descarga* [*Control on clean side* indicator] **E.** Indicador *de control en el lado de carga* [*Control on soil side* indicator] **F.** Electricidad, *interruptor maestro* [*Master switch* for power] **G.** Botón *del operador paracancelar señal* [*Operator signal* and *signal cancel* button] **H.** Pantalla de gráficas de cristal líquido [Liquid crystal graphic display] **I.** *Interruptor de llave para Correr/Programar* [*Run/Program keyswitch*] **J.** Teclado [Keypad] **K.** Botón para *comenzar* [*Start* button] **L.** Botón para *parar* [*Stop* button]

Figura [Figure] **4: Tablero [Keypad]**



Figura [Figure] **5: Controles regulares en el lado de descarga en la máquina Staph Guard [Typical Staph Guard Clean Side Controls]**

Panel de mandos [Control Panel]	Leyenda [Legend]
	**A.** Botón para *parada de emergencia* [*Emergency stop* button] **B.** Botón para *destrabar la puerta* [*Door unlock* button] **C.** Interruptor para *trote corto/selector de Autospot* [*Jog/Autospot selector* switch] **D.** Indicador de *control en el lado de descarga* [*Control on clean side* indicator] **E.** Indicador de *control en el lado de carga* [*Control on soil side* indicator] **F.** Botón de *transferencia de control* [*Control transfer* button] **G.** Botón para *trote corto/localización* [*Jog/spot* button]

Botón para parar de emergencia- —Este botón cuando es presionado se traba y desactiva el circuito de 3 alambres. Para destrabarlo se requiere hacerlo girar un cuarto de una vuelta completa. De regreso a la posición normal permitirá que la máquina pueda correr nuevamente.

Emergency stop button—disables the 3-wire circuit. This switch locks in when pressed, so you must turn it a quarter turn to allow it to return to the normal position to allow the machine to run.

Aviso 1: Presione el botón de *parada de*

Notice 1: Press the *emergency stop* button

emergencia inmediatamente en cualquier situación de emergencia. Esto desactiva el circuito de 3 alambres, detiene la operación de la máquina y abre la válvula de desagüe.

- Cuando se reajusta este botón usted tiene la opción de cancelar o de reanudar la fórmula que fue interrumpida. La fórmula se reanuda donde fue interrumpida o al principio del anterior ciclo de lavado, dependiendo en que etapa de la operación el botón de *parada de emergencia* fue oprimido.

Interruptor maestro de la electricidad (/)-—Desconecta la electricidad del sistema de controles. Si usted gira el *interruptor maestro* para apagar ( ) cuando una fórmula está corriendo,el resultado inmediato es similar a presionar el botón de *parada de emergencia*: la máquina se detiene y la válvula de drenaje se abre. A diferencia del botón de *parada de emergencia*, las fórmulas se reanudan al principio de la etapa específica en la que la corriente fue desconectada, pero los componentes químicos no pueden inyectarse en esa etapa.

Botón para cancelar la señal para el operador ( )-—Cancela la *señal para el operador*. Presione este botón para silenciar la señal sonora y apagar la luz de la *señal para el operador*, (vea más adelante}, o para permitir la adición del componente químico, suponiendo que esta adición al programarse requería de una señal previa.

Luz de señal para el operador-—Indica que la máquina ha encontrado un error o que el operador tiene que hacer algo, tal como: apretar el botón de *comenzar* o descargar la máquina. El circuito de *señal para el operador* incluye un timbre detrás del panel de control y puede incluir un faro instalado fuera del panel de control.

Pantalla de gráficas de cristal líquido-—Muestra información con respecto a la máquina. La información en la pantalla cambia de acuerdo a la condición de la máquina y a la función específica seleccionada por el operador.

Tablero-—Permite al operador comunicarse con el sistema de control de la máquina. Este tablero está dividido en tres secciones: los

immediately in any emergency situation. This disables the 3-wire circuit, which stops all machine operation and causes the drain to open.

- When you reset this button, you have the option of cancelling or resuming the interrupted formula. The formula resumes where it was interrupted or at the beginning of the previous bath step, depending on the operation in progress when the *emergency stop* button was pressed.

Master power switch (/)—removes power from the control system. If you turn the *master switch* off ( ) while a formula is running, the immediate result is similar to pressing the *emergency stop* button: the machine stops and the drain opens. Unlike the *emergency stop* button, resumed formulas start at the beginning of the step in which power was lost, but chemicals are not injected in the resumed step.

Operator signal cancel button ( )—cancels the *operator signal*. Press this button to silence the buzzer and turn off the *operator signal* light (see below), or to allow injection of a chemical programmed to require a signal before injection.

Operator signal light—indicates that the machine has encountered an error or that the operator must perform some action, such as pressing the *start* button or unloading the machine. The *operator signal* circuit includes a buzzer behind the control panel, and may include an optional beacon light mounted separately from the control panel.

Liquid crystal graphic display—displays information and help about the machine. The information on the display changes according to the status of the machine and the function selected by the operator.

Keypad—allows the operator to communicate with the machine control system. The keypad is divided into three

botones alfanuméricos, los de uso general y los utilizados para funciones específicas. Cada botón puede realizar más de una función, de acuerdo al momento en que es presionado. Algunos botones son también utilizados, en combinación, para funciones adicionales.

Botón de arranque ( )-—Comienza la fórmula seleccionada de lavado. El botón de *comenzar* activa el circuito de 3 alambres que permite la operación de la máquina.

Botón de parar ( )-—Detiene la operación de la máquina. Igual que el botón de *parada de emergencia*, el botón de *parada* desactiva el circuito de 3 alambres. Sin embargo, este botón de *parada* no necesita ser reposicionado manualmente después de haber sido usado.

Interruptor de llaves para correr/programar (/)-—En la posición de *Programar*, permite cambios en la configuración y en las fórmulas de lavado, entre otras cosas. En la posición normal de *Correr* la integridad de la configuración y de las fórmulas son protegidas en todo momento, aún cuando se corren las fórmulas.

areas: alphanumeric buttons, general buttons, and function-specific buttons. Each button may perform more than one function, based on the current machine status. Some buttons are also used in combinations for additional functions.

Start button ( )—starts the selected wash formula. The *start* button energizes the 3-wire circuit to allow the machine to operate.

Stop button ( )—stops machine operation. Like the *emergency stop* button, the *stop* button disables the 3-wire circuit; however, the *stop* button doesn't require you to manually reset it after use.

Run/Program keyswitch (/)—in the *Program* position, allows changes to machine configuration and wash formulas, among other actions. In the normal *Run* position, formulas and configuration are protected and formulas can be run.

1.1.4. ¿Qué hace este interruptor?

Otros botones e interruptores son usados para controlar funciones normales y opcionales . Estos controles diversos están situados y descritos en esta sección.

Interruptor para seleccionar Mildata/Local (Figura 6)-—Situado en el compartimiento que aloja al microprocesador,(vea Figura 1), le permite a la máquina comunicarse con la red MILDATA. El sistema conecta a varias máquinas permitiéndoles compartir fórmulas de lavar y otras informaciones, con la ordenadora Mildata. Cuando este interruptor está en la posición *Mildata* ( ) y usted anota el número de una fórmula la máquina le pide a la computadora Mildata toda la información relativa a esa fórmula. Cuando el interruptor es llevado a *Local*( ), solamente las fórmulas existentes **En la máquina** están disponibles.

What does this Switch do?

Other buttons and switches are used to control additional standard and optional machine functions. These miscellaneous controls are located and described in this section.

Mildata/Local selector switch (Figure 6)—located on the microprocessor control box (see Figure 1), allows the machine to communicate with a Mildata network. A Mildata network connects several machines together and allows them to share wash formulas and other data with the Mildata computer. When this switch is in the *Mildata* position ( ) and you enter a formula number, the machine requests the contents of the formula from the Mildata computer. When set to the *Local* position ( ), only formulas present **in the machine** are available.

Figura [Figure] **6: Interruptor para seleccionar Mildata/Local [Mildata/Local Selector switch]**



Botón para inyectar manualmente los productos químicos (Figura 7)—En las máquinas equipadas con inyector, apriete este botón para limpiar los residuos de productos químicos que queden en el compartimiento. También se recomienda el uso del inyector para limpiar la canaleja cuando se han estado agregando manualmente productos químicos durante el ciclo de lavado. Si la máquina carece de inyector, presione este botón para limpiar con agua fresca los sitios de entrada de los productos químicos.

Manual supply flush button (Figure 7)—On machines equipped with an optional flushing supply injector, press this button to spray water into the supply injector to flush any remaining chemicals into the cylinder. If you manually add supplies during a wash formula, press this button to flush any remaining undiluted chemicals out of the supply chute. If the machine is not equipped with the optional supply injector, press this button to flush the liquid chemical inlets with fresh water.

Figura [Figure] **7: Botón para inyectar manualmente los productos químicos [Manual Supply Flush button]**



Interruptor de selección Autospot (Figura 8)—Algunas máquinas con canastas divididas en compartimientos están equipadas con el dispositivo *Autospot* para ayudar en los procesos de carga y descarga. Este dispositivo permite colocar a cada compartimiento óptimamente para tener acceso a él, durante la carga y descarga.

Autospot selector switch (Figure 8)—Some divided-cylinder machines are equipped with the *Autospot* feature to aid in loading and unloading. This optional feature optimally positions the basket for access to the selected pocket.

Figura [Figure] **8: Interruptor de selección Autospot [Autospot selector switch]**



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Capítulo 2
Operación normal

Chapter 2
Normal Operation

BICWCO03 (Published) Book specs- Dates: 20070515 / 20070515 / 20071206 Lang: SPA01 Applic: CWS

2.1. Instrucciones de operación para el personal de la planta

Operating Instructions for Plant Personnel

2.1.1. Comience aquí para no tener accidentes

Este documento tiene el propósito de recordar a la persona encargada de esta lavadora/extractora del conocimiento que se requiere para operarla, libre de accidentes. No trate de operar este equipo hasta que un operador con experiencia le explique todos los detalles.

Start Here for Safety

This document is meant to remind you, the person operating this washer extractor, of what is required to operate this machine. Do not attempt to operate this machine before an experienced, trained operator explains the details to you.



PELIGRO 2 : Riesgos diversos—Las acciones descuidadas de los operarios pueden causar heridas o la muerte, dañar o destruir la máquina, causar daños a la propiedad o anular la garantía.

DANGER 2 : Multiple Hazards—Careless operator actions can kill or injure personnel, damage or destroy the machine, damage property, and/or void the warranty.



PELIGRO 3 : Riesgos de electrocución y quemaduras por electricidad—El contacto con la electricidad puede ocasionarle lesiones graves o la muerte. La electricidad está presente dentro del gabinete, a menos que el interruptor principal, fuera de la máquina, esté desconectado.

- No destrabe ni abra las puertas de los tableros eléctricos.
- Conozca la ubicación de la desconexión principal y aprenda a utilizarla en una emergencia para eliminar toda la energía eléctrica de la máquina.
- No realice ningún servicio a la máquina a menos que esté calificado y autorizado. Comprenda claramente los peligros y la

DANGER 3 : Electrocution and Electrical Burn Hazards—Contact with electric power can kill or seriously injure you. Electric power is present inside the cabinetry unless the main machine power disconnect is off.

- Do not unlock or open electric box doors.
- Know the location of the main machine disconnect and use it in an emergency to remove all electric power from the machine.
- Do not service the machine unless qualified and authorized. You must clearly understand the hazards and how to avoid them.

manera de evitarlos.



PRECAUCIÓN 4 : Riesgos de choque, aplastamiento y retuerzos—El contacto con componentes en movimiento que están habitualmente aislados por guardas, cubiertas y paneles pueden enredar y aplastar sus miembros. Tenga en mente que estos componentes se mueven de manera automática.

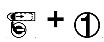
CAUTION 4 : Collision, Crushing and Pinch Hazards—Contact with moving components normally isolated by guards, covers, and panels, can entangle and crush your limbs. These components move automatically.

2.1.2. Revise la posición de los interruptores

Check Switch Settings

Visualización o acción [Display or Action]	**Explicación**	**Explanation**
	Estése seguro que el interruptor de llave de *Correr/Programar* está en .	Check that the *run/program* keyswitch is at .
	Cerciórese que todos los botones de parada en caso de emergencia estén destrabados y en la posición *listo* para permitir la operación de la máquina.	All emergency stop buttons must be unlatched and in the *ready* position to allow machine operation.
	Cerciórese que el interruptor principal esté en .	Check that the master switch is at .

2.1.3. ¿Cómo yo cargo una máquina StaphGuard®? / How do I Load a StaphGuard® Machine?

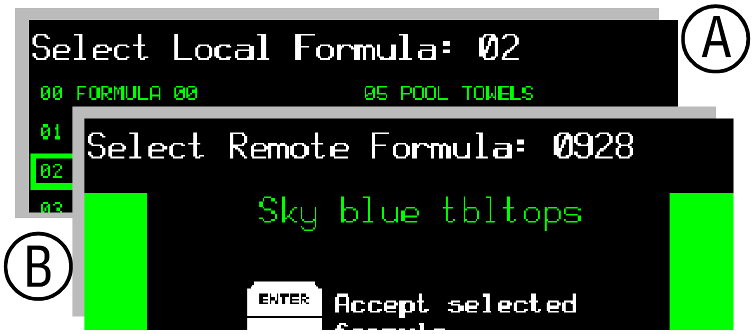
Visualización o acción **[Display or Action]**	**Explicación**	**Explanation**
	Abra la puerta externa .	Open the outer door.
	Seleccione el compartimiento de carga.	Select a pocket to load.
	Alinee el compartimiento seleccionado con la puerta externa.	Align the selected pocket with the outer door.
	Abra la puerta interna del primer compartimiento que usted seleccionó.	Open the inner door of the first pocket to load.
Siga las instrucciones indicadas por la gerencia para cargar la máquina.		Use the procedure defined by facility management to put the goods in the machine.
	Cierre con el pasador la puerta interna.	Close and latch the inner door.
	Abra la puerta interna del primer compartimiento que usted seleccionó.	Open the inner door of the first pocket to load.
Verifique que todos los compartimientos estén cargados con artículos similares de aproximadamnente el mismo peso.		Verify that all pockets are loaded with similar goods to about the same weight.

2.1.4. ¿Cómo yo selecciono una fórmula? / How do I Select a Formula?

El controlador de Mark VI puede operar en el modo *Local* o *Mildata*. En el modo *Local*, la máquina no se comunica con otros dispositivos y sólo corre las fórmulas programadas en la memoria local del controlador. En el modo *Mildata* la máquina transfiere y corre fórmulas de la ordenadora Mildata y frecuentemente actualiza la pantalla en la ordenadora.

The Mark VI controller can operate in either *local* or *Mildata* mode. In *local* mode, the machine does not communicate with any other devices and runs formulas contained in local controller memory. In *Mildata* mode the machine downloads and runs formulas from the Mildata computer, and frequently updates the display on the Mildata computer.

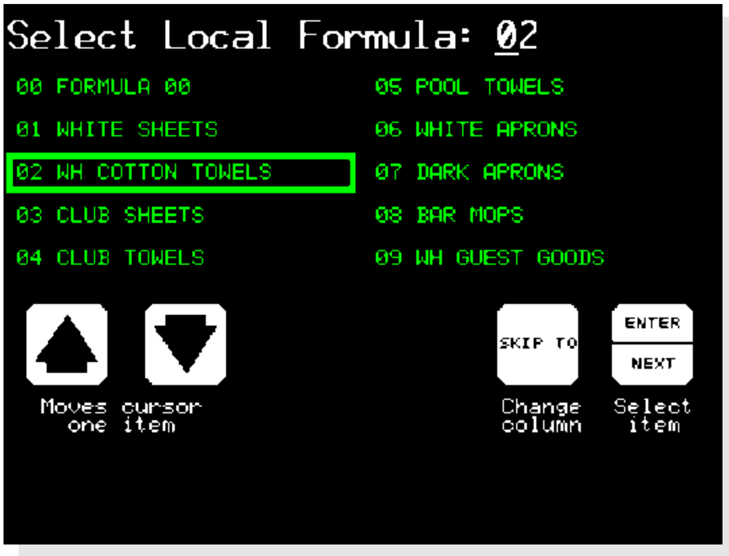
Figura [Figure] **9: Seleccionando una fórmula local o una remota [Selecting a Local or Remote Formula]**

Muestras de pantallas para *seleccionar programas* [*Select Program* Displays]	Leyenda [Legend]
	**A.** Local (Mildata ausente o activada) [Local (Mildata not present or enabled)] **B.** Remoto (Mildata activada) [Remote (Mildata enabled)]

2.1.4.1. Seleccionando una fórmula local—Si la máquina no es parte de la red Mildata, o si la red no está disponible, usted puede escoger cualquiera de las fórmulas de lavado almacenadas en la memoria local de la máquina. Use la pantalla para *seleccionar una fórmula local* (Figura 10) y escoja la fórmula más apropiada para los artículos que piensa lavar.

Selecting a Local Formula—If the machine is not part of a Mildata network, or if the Mildata network is not available, you can choose from any of the wash formulas stored in local memory on the machine. Use the *Select Local Formula* screen (Figure 10) to choose the correct formula for the goods in the machine.

Figura [Figure] **10: Pantalla para *seleccionar una fórmula local* [*Select Local Formula* Screen]**



Visualización o acción [Display or Action]	**Explicación**	**Explanation**
0 7	Seleccione directamente la fórmula que usted quiere correr (por ejemplo, 07). Cuando usted registra un número de dos dígitos, la fórmula seleccionada se traslada al tope de la columna izquierda en la pantalla.	Directly selects the formula you want to run (07, for example). When you enter a two-digit number, the selected formula moves to the top of the left column on this screen.
SKIP TO	Cambie la columna para la selección de la fórmula, si se hace necesario. Si la fórmula deseada es visible en la pantalla, pero aparece en la columna opuesta de la caja seleccionada, la pulsación de esta tecla traslada la caja seleccionada a la otra columna de fórmulas.	Toggles the column for formula selection if necessary. If the desired formula is visible on the screen, but is in the opposite column from the selection box, this keystroke moves the selection box to the other column of formulas.
↓ / ↑	Cambie para la próxima o anterior fórmula mostrada en la columna actual. Si la fórmula deseada es visible en la pantalla y en la misma columna de la caja seleccionada, usted puede usar estas dos teclas para mover la caja seleccionada hacia abajo o hacia arriba para escoger la fórmula.	Move to the next or previous displayed formula in the current column. If the desired formula is visible on the screen and in the same column as the selection box, you can use these two keys to move the selection box down or up to select the formula.

Visualización o acción **[Display or Action]**	**Explicación**	**Explanation**
ENTER	Confirme la fórmula seleccionada. Coloque la caja seleccionada en la fórmula que usted desea correr, luego oprima ENTER para continuar con el proceso normal de operación.	Confirm the selected formula. Place the selection box on the formula you want to run, then press ENTER to continue with the normal operation procedures.

Complemento 1

Acerca del peso de la carga y *conteo del agua*

EL *Conteo del agua* es posible en las lavadoras-extractoras Mark VI equipadas con un contador, instalado en las líneas de entrada, del flujo del agua. . Esta opción permite al controlador Mark VI el uso racional del agua si se pesan con exactitud los artículos en cada carga. El controlador establece la proporcionalidad que debe existir entre el volumen del agua y el peso de la carga.

Supplement 1

About Load Weight and *Metered Water*

Metered water is available on Mark VI washer-extractors equipped with optional flow meters on the incoming water lines. This feature allows the Mark VI controller to admit a quantity of water proportional to the weight of goods you enter after selecting the formula. If you enter a weight of 200 units when prompted, the machine will use twice as much water as if you entered 100 weight units. This option can save a significant amount of water if you enter accurate weights for each load.

Figura [Figure] **11: Registrando el peso de la carga en máquinas con contador de agua [Entering Load Weight for Metered Water]**



Visualización o acción [Display or Action]	**Explicación**	**Explanation**
4 4 9	Registre el peso de los artículos que desea lavar. El controlador de la máquina usa este peso para determinar el agua que se requiere en esa fórmula.	Enter the weight of the goods loaded in the machine. The machine controller uses the weight to determine how much water is needed to wash the goods according to the programmed wash formula.
ENTER	Admite el peso registrado de los artículos y continúa	Accept the entered goods weight and continue.

2.1.4.2. Seleccionando una fórmula Mildata

Seleccionando una fórmula Mildata—Si la máquina es parte de la red Mildata y el sistema está disponible usted puede escoger cualquier fórmula de lavado almacenada en la ordenadora Mildata. Use la pantalla para *Seleccionar la fórmula remota*(Figura 12) para escoger la mejor de las fórmulas de acuerdo a los artículos que usted planea lavar.

Nota 1: Usted puede guardar hasta 1000 diferentes fórmulas de lavado en la ordenadora Mildata. Todas estas fórmulas estarán disponibles para todas las lavadoras-extractoras que sean parte de la red y posean compatibilidad.

Selecting a Mildata Formula—If the machine is part of a Mildata network and the network is available, you can choose any wash formula stored on the Mildata computer. Use the *Select Remote Formula* screen (Figure 12) to choose the best formula for the goods in the machine.

Note 1: You can store up to 1000 different wash formulas on the Mildata computer. All of these formulas are available to all washer-extractors that are part of the Mildata network and have compatible hardware.

Figura [Figure] **12: Pantalla para *Seleccionar fórmula remota* [*Select Remote Formula* Screen]**



Visualización o acción [Display or Action]	**Explicación**	**Explanation**
0 9 2 8	Seleccione, por ejemplo, la fórmula 928 guardada en la ordenadora Mildata. El controlador Mark VI solicita la fórmula de la computadora Mildata y muestra el nombre de la fórmula, como se ve en Figura 12.	Select formula 928 (example) stored on the Mildata computer. The Mark VI controller requests the formula from the Mildata computer and displays the formula name, as shown in Figure 12.
ENTER	Confirme que el nombre de la fórmula mostrado corresponde con el nombre de la fórmula que usted quiere correr. Si el nombre de la fórmula mostrado no es el que usted deseaba, presione CANCEL para borrar el nombre de la fórmula y luego pulse otro número.	Confirm that the displayed formula name is the formula you want to run. If the displayed formula isn't the right one for the loaded goods, press CANCEL to clear the formula number, then enter another number.

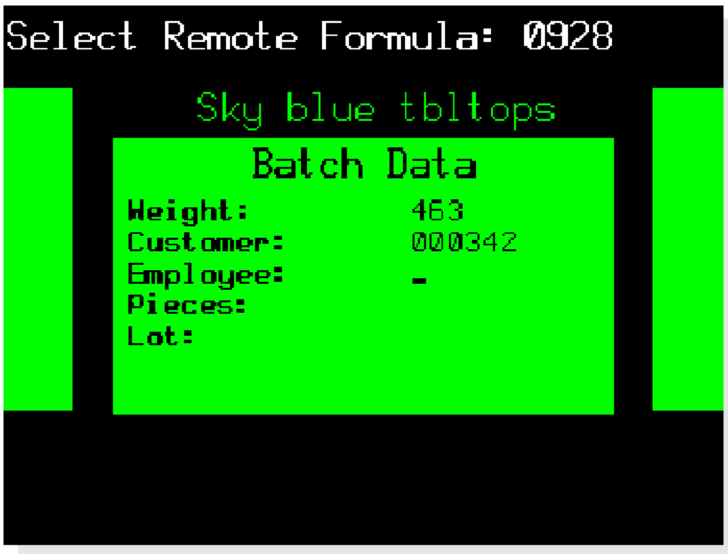
Después que usted haya recuperado y verificado la fórmula, el controlador Mark VI pregunta por la *Información del lote* previamente configurada.

After you've retrieved and verified the formula, the Mark VI controller prompts for any configured *batch data*.

2.1.4.3. Registrando *Códigos del lote en la ordenadora Mildata* —El controlador Mark VI usa una pantalla similar a Figura 13 para preguntar por el área seleccionada en la configuración. Esta configuración contiene la información del lote, (vea La sección relacionada en el documento BICWCC01). La información que usted registre es enviada a la ordenadora Mildata. Esta información se utiliza en reportes generales y financieros.

Entering *Mildata Batch Codes*—The Mark VI controller uses a screen similar Figure 13 to prompt you for the batch data fields selected in machine configuration (see the related section in document BICWCC01). The data you enter is sent to the Mildata computer for accounting and report generation.

Figura [Figure] **13: Información del lote para la operación de una fórmula remota [Batch Data for Remote Formula Operation]**



Peso-—El peso del lote de artículos en la máquina. Esta información es generalmente usada junto con otros datos para calcular costos, cargos para los clientes y productividad. En las máquinas que llevan instalados equipos para medir el flujo del agua y que están configuradas para ese propósito, el peso del lote es también usado para determinar la cantidad de agua que se requerirá para procesar el lote. El peso puede expresarse hasta con tres (3) números.

Weight—the weight of the batch of goods in the machine. This information is usually used along with other batch data to calculate customer charges or employee productivity. In machines equiped with optional flow meters and configured for metered water, the weight value is also used to determine how much water is required to process the batch. The weight value can be up to three digits.

Código del cliente-—El código o clave de identificación del usuario. Esta información puede ayudarte a determinar la extensión de las relaciones comerciales con cada cliente. El código permite usar hasta diez (10) números por usuario.

Customer Code—the identifying code for the customer. This information can help you determine how much work each customer is submitting. Ten digits are available for customer code.

Número del empleado-—El código de identificación del empleado responsable del lote. El empleado puede ser identificado hasta con cinco (5) números.

Employee Number—the identifying code for the employee responsible for this batch. The employee number may be up to five digits long.

Piezas-—El número de piezas en la máquina. Este número algunas veces reemplaza la cantidad que representa el peso, especialmente cuando las facturas se basan en el número de piezas. El código admite hasta cuatro (4) dígitos para las piezas.

Número del lote-—El código o clave de identificación para varios lotes o clientes relacionados en alguna forma. El número que usted registre aquí puede representar una ruta particular común a varias cuentas. El número del lote puede ser hasta de diez (10) dígitos.

Pieces—the number of pieces in the machine. This value sometimes replaces the weight value, especially when charges are made by the piece rather than by weight. Four digits are available for the number of pieces.

Lot Number—the identifying code for several related batches or customers. At your discretion, the value entered here might represent a particular route number common to several accounts. A lot number can be up to 10 digits long.

2.1.5. Comience la fórmula seleccionada

Start the Selected Formula

Estése seguro que usted complete estos pasos antes de adentrarse más en las operaciones.

1. Usted ha cargado la máquina de acuerdo o muy cerca de su capacidad en peso.
2. Usted ha seleccionado una fórmula que es apropiada para los artículos que usted pretende lavar.
3. Usted ha registrado toda la información relacionada con el lote requerida por el controlador de la máquina con respecto al agua – si la máquina está provista con un medidor - y la ordenadora Mildata.
4. Usted ha cerrado la puerta.

Be sure you've completed these steps before you go any further in the operating procedure.

1. You've loaded the machine at or near its rated weight capacity.
2. You've selected a formula that's appropriate for the goods in the machine.
3. You've entered any batch data the machine controller requires for metered water or Mildata reporting.
4. You've closed the door.

Visualización o acción [Display or Action]		Explicación	Explanation
	①	Empiece la fórmula seleccionada.	Start the selected formula.

La máquina empieza el ciclo de lavado. La canasta empieza a rotar y las válvulas de agua se abren. Cuando se alcance un cierto nível de protección, la válvula de vapor puede abrirse y empieza a calentar el baño. Desde este momento en adelante la operación es completamente automática, a menos que una señal audible o visual esté programada con la inyección de productos químicos.(vea Complemento 2).

The machine begins the wash formula. The basket begins turning and water valves open. When a safe level is achieved, the steam valve may open to begin heating the bath. Operation from this point to the end of the formula is completely automatic unless a signal is programmed with a chemical injection (see Supplement 2).

Complemento 2

Inyección de productos químicos con señal para el operador

Si usted necesita ajustar el uso de productos químicos, teniendo en cuenta los factores variables de cada lavada, recuerde que la fórmula puede ser programada para detener el cronometrador del controlador y requerir la atención del operador, cuando sea necesario agregar los productos químicos. Agregue los productos químicos y después presione para reanudar el ciclo.

Supplement 2

Chemical Injections with the Operator Signal

If you need to adjust the amount of a chemical injection from load to load depending on highly variable factors, the formula can be programmed to stop the timer and signal you when a chemical is required. Add the chemical, then press to resume the formula.

2.1.6. ¿Qué me dice la pantalla *Correr*?

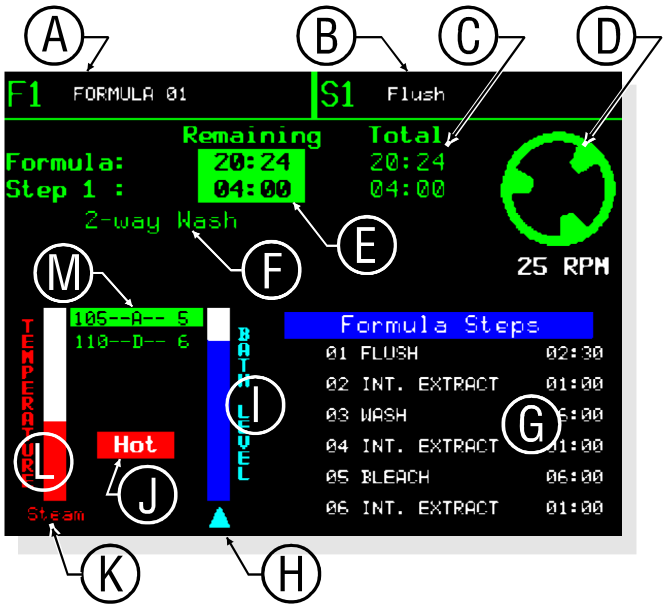
Cuando la máquina está corriendo la fórmula que usted seleccionó, la pantalla aparece en esta manera, en forma idéntica a la que se muestra en Figura 14. La información mostrada aquí es explicada abajo.

What Does the *Run* Display Tell Me?

While the machine is running the formula you selected, the display appears similar to the one shown in Figure 14. The information shown here is explained below.

Figura [Figure] **14: ¿Cómo leer la pantalla de *Correr* ? [How to Read the *Run* Display]**

Pantalla típica [Typical Display]



Leyenda [Legend]

A. Número y nombre de la fórmula [Formula number and name]

B. Número y nombre del ciclo [Step number and name]

C. Tiempo total de la fórmula y del ciclo actual [Total time for formula and current step]

D. Gráfica de la rotación de la canasta y su velocidad [Basket rotation graphic and speed]

E. Tiempo total que queda para finalizar la fórmula y el ciclo actual [Remaining time for entire formula and current step]

F. Condición actual de la máquina [Machine status message]

G. Número, nombre y duración de los ciclos que componen la fórmula [Formula steps: number, name, and duration]

H. Indicator al llenar o al desaguar [Indicator for filling or draining]

I. Gráfica indicadora del nível del baño [Graphic bath level indicator]

J. Indicadores de las válvulas de agua [Water valves indicators]

K. Indicador para las válvulas opcionales de vapor y enfriamiento [Indicator for optional steam and cooldown valves]

L. Gráfica indicadora de la temperatura del baño [Graphic bath temperature indicator]

M. Información sobre la temperatura y nível del baño [Bath temperature and level data]

2.1.6.1. Información sobre la fórmula y el ciclo-

—La línea en el tope de la pantalla siempre muestra el número y nombre de la fórmula y del ciclo actual. El *Número de la fórmula* aparece en la esquina izquierda, en la parte superior, detrás de la letra "F.". El *Nombre de la fórmula* viene detrás del número.

El *número y nombre del ciclo actual* es mostrado en la pantalla, al lado derecho de la información sobre la fórmula. El controlador Mark VI actualiza el número y nombre de la fórmula y de todos los ciclos, al pincipio de cada fórmula y de cada ciclo.

Debajo del nombre de la fórmula y del ciclo la *Información del tiempo* es mostrada. Los números en la columna "Total" - números en verde – muestran el tiempo que queda para que la fórmula y el ciclo se terminen, sin incluír los factores descritos en Nota 2. El controlador calcula al principio el tiempo de la "Fórmula". Este valor no cambia cuando la fórmula está corriendo. El controlador también calcula y muestra el tiempo del "Ciclo x". Estos tiempos son calculados al principio.

Los números en la columna de "Pendiente", en el área que muestra los tiempos, (números en negro sobre un fondo verde) indican el *Tiempo pendiente* en la fórmula y en el ciclo actual. Estos números indican la **mínima** cantidad de tiempo pendiente,(vea Nota 2).

Nota 2: La duración de algunas fórmulas de lavado no pueden estimarse con precisión. Por ejemplo, el tiempo que se requiere para alcanzar el nível de agua deseado depende de muchos factores tales como: la presión del agua en la planta, el tamaño de las tuberías y el número de máquinas que están llenándose al mismo tiempo. Alcanzar la temperatura deseada y el tiempo que lleva a un operador inyectar los componentes químicos son otros factores cuya duración no puede estimarse con exactitud. En estas situaciones el controlador detiene el cronómetro hasta que el proceso finalice. Errores en la operación también detienen el reloj.

El controlador muestra la actual *Condición de la máquina* en la línea debajo del número del ciclo y del tiempo pendiente. Algunas de las condiciones están enumeradas en Tabla 1. Avisos de errores aparecen inmediatamente debajo de la condición de la máquina, cuando ocurren.

Formula and Step Information

—The top line of the display always shows the number and name of the current formula and step. The *formula number* appears in the upper left corner of the display, following the letter "F."The *formula name* follows the number.

The *step number and name of the current step* are displayed to the right of the formula information. The Mark VI controller updates the formula number and name when a formula starts and at the beginning of each subsequent step.

Below the formula and step names is *time information*. The numbers in the "Total" column (green numbers) show the total time required for the formula and step to run to completion, not including the factors described in Note 2. The controller calculates the "Formula" value when the formula begins, and this value doesn't change while the formula is running. The controller calculates and displays the "Step x" value at the start of each step.

The numbers in the "Remaining" column of the time area (black numbers on a green background) indicate the *time remaining* in the formula and in the current step. These numbers indicate the **minimum** amount of time remaining (see Note 2).

Note 2: The duration of some wash formula events can't be estimated, so the controller stops the timer until a requirement is met. For example, the time required for the machine to fill to the desired level depends on the water pressure to the plant, the size of the piping to the machine, and how many other machines are filling at the same time. In addition to the time required to fill, the time required to achieve temperature or for an operator to verify a chemical injection are variable. Error conditions can also stop the timer.

The controller displays the current *machine status* below the step number and remaining time. Some of the possible machine states are listed in Table 1. Error messages appear immediately below the machine status message when required.

Tabla 1: Mensajes de la condición de la máquina
[English table follows]

Ociosa	Corriendo por inercia
Lavar rotando en una sóla dirección	Esperando para ser descargada
Lavar rotando en dos direcciones	Esperando para ser cargada
Remojar	Demora en encender
Extracción pre+final	Desaguando al sumidero
Extracción intermedia	Desaguando para reusar
Extracción final	Cronómetro parado
Extracción doble	Por favor, espere xx Segundos

Table 1: Machine Status Messages

Idle	Coasting
1-way Wash	Waiting to Discharge
2-way Wash	Waiting for Load
Soak	Power-up Delay
Pre+Final Extract	Draining to Sewer
Intermediate Extract	Draining to Reuse
Final Extract	Timer Stopped
Double Extract	Please Wait xx Seconds

2.1.6.2. **Rotación de la canasta-**—La *Gráfica de la rotación de la canasta* en el lado derecho, en la esquina cerca del tope, representa la velocidad de la canasta durante los procesos de lavado, desagüe y extracción. Exactamente debajo de esa gráfica el controlador muestra la velocidad deseada de la canasta en revoluciones por minuto (RPMs) o en unidades gravitacionales (G’s).

Basket Rotation—The *basket rotation graphic* near the upper right corner of the display represents the relative basket speeds in wash, drain, and extract speeds. Immediately below the basket rotation graphic, the controller displays the desired basket speed in either revolutions per minute (RPMs) or in gravitational units (G's).

2.1.6.3. **Temperatura y nível del baño-**—El *indicador de las válvulas de agua* aparece cuando la válvula correspondiente de agua se abre

La gráfica *indicadora de la temperatura del baño* muestra la temperatura aproximada en la máquina. La barra vertical está totalmente roja cuando la temperatura alcanza la máxima temperatura permitida de 205 grados Fahrenheit (95 grados Celsio).

El indicador de calentamiento o de enfriamiento aparece debajo de la gráfica indicadora de la temperatura, cuando cualquiera de estas opciones es activada. Cuando la válvula de vapor se abre aparece el indicador de “Calentamiento por vapor ” y cuando la opción de enfriar es habilitada aparece el indicador de

Bath Temperature and Level—*Water valve indicators* appear when the corresponding water valve is open.

The graphic *bath temperature indicator* shows the approximate temperature in the machine. The vertical indicator bar is solid red when the temperature in the machine is at the maximum allowable value of 205 degrees Fahrenheit (95 degrees Celsius).

The steam or cooldown indicator appears below the graphic temperature indicator when either of these optional features is enabled. “Steam” appears when the steam valve is open, and “Cooldown” appears when the cooldown output is enabled.

“Enfriamiento por agua”.

La gráfica *Indicadora del nível del baño* muestra el porcentaje del nível deseado que sido obtenido. La barra vertical está completamente azul cuando se logra el nível programado. Cuando no hay agua en la máquina la barra es totalmente blanca.

The graphic *bath level indicator* shows the percentage of the desired level that's achieved. The vertical indicator bar is solid blue when the programmed level is achieved, and solid white when there is no water in the machine.

La *flecha indicadora de la dirección del nível* señala hacia arriba cuando el actual nível está aumentando (cuando la máquina esta llenándose) y señala hacia abajo cuando la válvula de desagüe se abre. La flecha no es visible cuando se alcanza el nível o durante los ciclos de extracción.

The *level direction indicator arrow* points upward when the actual bath level in the machine is increasing (when the machine is filling), and points downward when the drain opens. The arrow is not visible when level is achieved, or during extract steps.

El controlador muestra la *información sobre el nível y temperatura del baño* en el área situada entre las gráficas indicadoras de la temperatura y el nível. La línea de arriba muestra la temperatura y el nível ya alcanzados mientras que la línea inferior muestra los valores deseados.

The controller displays *bath temperature and level data* between the temperature and level graphic indicators. The top line displays the temperature and level that are currently achieved in the machine, and the bottom line displays the desired values.

2.1.6.4. Ciclos de la fórmula e inyección de los productos químicos-

—Cuando una fórmula comienza, el controlador muestra los primeros seis ciclos en la *Lista de los ciclos de la fórmula*, en la parte inferior de la parte izquierda de la pantalla. Si el programa contiene más de seis ciclos, el controlador busca mostrar estos ciclos a medida que los primeros vayan terminando. El ciclo actual es realzado.

Formula Steps and Chemical Injection

—When a formula begins, the controller displays the first six steps in the *formula steps list* in the lower left area of the screen. If the program contains more steps than can be displayed at one time, the list scrolls to display more steps as the earlier ones end. The current step is highlighted.

La lista de *Inyección programada de productos químicos* reemplaza la lista de los ciclos de la fórmula en cada inyección, con una caja realzada mostrando el producto químico que se está inyectando en ese momento.

The list of programmed *chemical injections* replaces the formula steps list during each injection, with a highlight box on the chemical that's currently injecting.

2.1.7. Descargar la máquina

Cuando la fórmula termina la señal para el operador suena y la máquina despliega un mensaje diciendo que está esperando para ser descargada {vea Figura 15). Use el procedimiento similar al descrito más adelante para desgargar la canasta.

Unload the Machine

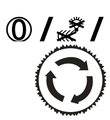
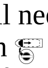
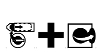
When the formula ends, the operator signal sounds and the machine displays a message that it is waiting to discharge (see Figure 15). Use a procedure similar to the one outlined below to unload the goods.

Figura [Figure] **15: Mensaje típico cuando la fórmula termina [Typical Message when Formula Ends]**



2.1.7.1. Para cualquier *Código para terminar*—El controlador Mark VI te ofrece cuatro códigos para terminar una fórmula. De estos cuatro códigos solamente puedes programar uno. Estas opciones son: *parar*, *girar, reversando, a la velocidad de lavado*, *girar a la velocidad de desagúe* , o *Girar, reversando, a la velocidad de lavado (Tumbling)*. Use el mismo método de descarga para las fórmulas que usan los tres primeros códigos. Para el cuarto código también existe la opción de usar el método descrito en Sección 2.1.7.2.

For any *End Code*—The Mark VI controller allows you to program one of four possible actions for the end of the formula: *stopped*, *reversing at wash speed*, *turning at drain speed*, or *tumbling*. You use the same unloading procedure for formulas using the first three actions. For the fourth action, you also have the option of using the procedure described in Section 2.1.7.2.

Visualización o acción [Display or Action]	**Explicación**	**Explanation**
	Desconecta la corriente del circuito de 3 alambres, silencia la señal para el operador y detiene el movimiento de la canasta. Este botón también destraba la puerta para que puedas abrirla.	Remove power from the 3-wire circuit, silence the operator signal, and stop any basket motion in progress. This button also unlocks the door so you can open it.
	Usted puede también desconectar la corriente del circuito de tres alambres, desconectar la señal para el operador y detener el movimiento de la canasta con cualquiera de estos botones. Sin embargo, si usted usa cualquiera de estos botones usted necesitará destrabar la puerta con , antes de que la pueda abrir. Si usted usa cualquiera de estos botones para interrumpir una fórmula *con el código 3 de finalizar* (vea Sección 2.1.7.2), la fórmula se terminará y no podrá ser reanudada.	You can also remove power from the 3-wire circuit, silence the operator signal, and stop any basket motion that was in progress with any of these buttons. However, if you use any of these buttons, you'll still need to unlock the door with  before you can open it. If you use any of these buttons to stop a formula with *end code 3* (see Section 2.1.7.2), the formula is terminated and cannot be resumed.
	Abre la puerta para descargar.	Open the door for unloading.

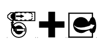
2.1.7.2. Para terminar con el código 3 (*Girando (Tumbling)*)—El uso del código 3 (*Girando (Tumbling)*) permite abrir la puerta y remover algunos de los artículos, luego podrá cerrar la puerta y reanudar el movimiento de la canasta para aflojar más artículos y facilitar el proceso de descarga.

For End Code 3 (*Tumbling*)—End code 3 (*Tumbling*) allows you to open the door and remove some of the goods, then close the door and resume tumbling to loosen more goods from the basket.

Visualización o acción [Display or Action]	Explicación	Explanation
	Desconecta la corriente del circuito de 3 alambres, silencia la señal para el operador y detiene el movimiento de la canasta. Este botón también destraba la puerta para que puedas abrirla.	Remove power from the 3-wire circuit, silence the operator signal, and stop any basket motion in progress. This button also unlocks the door so you can open it.

Cuando la canasta deje de moverse, abra la puerta y retire algunos o todos los artículos de la máquina.

When the basket stops turning, open the door and remove some or all of the goods from the machine.

	Abre la puerta para descargar.	Open the door for unloading.

Retire la cantidad deseada de la carga.

Remove any desired portion of the load.

	Cierre la puerta.	Close the door.
①	Reanuda el movimiento de la canasta en dos direcciones,sin la señal del operador. La acción giratoria (tumbling) continúa por otros dos minutos a menos que usted presione a .	Resumes the tumbling action without the operator signal. Tumbling continues for another two minutes, or until you press .

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— End of BICWCO03 —

Capítulo 3 Señales y errores

Chapter 3 Signals and Errors

BICWCT04 (Published) Book specs- Dates: 20070515 / 20070515 / 20071206 Lang: SPA01 Applic: CWS

3.1. Intervención del operador

Una vez que la fórmula comienza, la máquina generalmente corre automáticamente. Ocasionalmente la máquina emitirá una señal en forma de sonido para requerir que el operador tome una decisión o haga algo manualmente. Usualmente el operador tiene que corregir errores en el funcionamiento de la máquina y en algunnos casos tiene que agregar productos químicos.

Operator Intervention

Once a formula starts, the machine usually runs automatically. The machine will sound the signal if an operator needs to make a decision or do something manually. The most common reasons you'll need to attend to the machine are errors, and to manually add chemicals in some cases.

3.1.1. Señal para el operador cuando ocurre un error

La señal para el operador sonará y el faro se encenderá si algún error causa que la máquina se detenga. Estos errores usualmente desactivan el circuito de tres alambres. La desactivación del interruptor protector contra vibración excesiva o una malfunción del inversor que controla los motores son típicos errores que paralizan la máquina. Figura 16 muestra como el error aparece en la pantalla cuando un interruptor protector contra vibración excesiva desactiva el circuito de tres alambres.

Error with Operator Signal

The operator signal will sound and the beacon will flash if an error causes the machine to stop. These errors usually disable the three-wire circuit, and include a tripped vibration switch or a malfunction of the inverter that controls the motor. Figure 16 shows how a vibration switch error appears on the display.

Figura [Figure] **16: Señal para el operador cuando ocurre un error típico [Typical Error with Operator Signal]**



Para reanudar la fórmula, silencie la señal y corrija la causa del error. Luego, reinicie la fórmula.

To resume the formula, silence the signal and correct the cause of the error. Then, restart the formula.

Visualización o acción [Display or Action]	**Explicación**	**Explanation**
	La tecla de cancelar (Cancel) en el teclado detiene la máquina, silencia la chicharra y apaga la señal luminosa. Usted tendrá que reiniciar la operación de la máquina desde el principio.	The Cancel key on the keypad stops the machine, silences the operator signal buzzer, and turns off the signal light. You'll have to restart the formula from the beginning.

Corrija la causa del error. Si usted desconoce como hacerlo haga que alguién lo ayude a buscar la información apropiada en el manual de referencia de la máquina.

Correct the cause of the error. If you don't know how to fix the problem, have someone check the reference manual for the machine.

①	Si usted ha corregido el error, el botón de empezar (Start) reanuda la operación donde se detuvo. Si el interruptor protector de excesiva vibración ocasionó el error, la máquina reanuda la fórmula en un ciclo que distribuye la carga equitativamente en la canasta, antes de reiniciar el ciclo de extracción.	If you've corrected the error, the Start button resumes the formula where it stopped. If the vibration switch caused the error, the machine goes through a distribution sequence to spread the goods around the basket, then resumes the interrupted extract step.

3.1.2. Señal del operador para inyectar productos químicos

La máquina puede controlar un sistema de inyección automática de productos químicos o puede avisarte para que los agregues

Operator Signal for a Chemical

This machine can control an automatic chemical pump system, or it can signal you to add chemicals manually. The display

manualmente. La representación visual en la pantalla (Figura 17) es la misma en ambos casos, pero la señal sonora sólo aparece cuando es programada.

(Figure 17) appears the same in either case, but the operator signal sounds only if the signal is programmed.

Cuando la fórmula es programada para controlar un sistema de inyección automática, la pantalla muestra el número de la válvula, el nombre del producto químico y el tiempo de inyección. El tiempo de inyección, mostrado en el lado derecho, al final, empieza a contarse inmediatamente en forma regresiva tan pronto como el proceso de inyección comienza.

If the formula is programmed to control a chemical pump system, the display shows the programmed chemical valve number, chemical name, and injection time. The injection time, shown at the right end of the chemical display, begins counting down immediately when the chemical injection begins.

Cuando la fórmula es programada para emitir una señal de aviso, requiriendo que los productos químicos sean agregados manualmente, la máquina funcionará normalmente hasta que llegue el momento de añadir el producto químico. En ese momento, la máquina se detiene y espera por la adición del producto químico y luego reanuda la operación normal. La pantalla cambia para recordarte el producto químico que tienes que agregar, pero el conteo regresivo comienza después que la señal para el operador es cancelada.

If the formula is programmed to signal you to manually add chemicals, the machine will operate automatically until it needs a chemical, then the machine stops and waits for you to add the chemical and resume operation. The display changes to show you which chemical to add, but the injection time counter runs only after you cancel the operator signal.

Figura [Figure] **17: Vista de la inyección del producto químico en la pantalla de correr [Chemical Injection View on Run Display]**



Visualización o acción [Display or Action]	Explicación	Explanation
Después que usted ha añadido el producto químico		After you've added the chemical,
	Cancela la señal para el operador y empieza el conteo del tiempo de inyección	cancels the operator signal and starts the injection time counter.

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Türk 5

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Kullanıcı rehberi [Operator Guide]—

StaphGuard® Mark VI Kontroller ile Yıkama Sıkma Makineleri [StaphGuard® Washer-extractor with Mark VI Controller]

DİKKAT: Bu el kitabında bulunan bilgiler, Pellerin Milnor Corporation tarafından yalnızca**İngilizce olarak sağlanmıştır.**Milnor kaliteli bir çeviri sunmaya çalışmıştır, fakat İngilizce olmayan sürümde bulunan bilgilerin doğruluğu, eksiksizliği veya yeterliliği hakkında hiçbir iddiada bulunmaz, söz veya garanti vermez.

Ayrıca, İngilizce olmayan sürümde bulunan bilgiler tamamen bir üçüncü parti tarafından sağlandığı için, Milnor bu bilgileri doğrulamak amacıyla bir girişimde bulunmamıştır. Bundan dolayı, Milnor içerik veya biçimdeki hatalarla ilgili yükümlülüğü açıkça reddeder ve İngilizce olmayan sürümde bulunan bilgilere güvenilmesiyle veya bu bilgilerin kullanılmasının sonuçlarıyla ilgili hiçbir sorumluluk almaz.

Milnor veya aracıları ya da çalışanları, bu el kitabının İngilizce olmayan sürümünün kullanılması veya kullanılamaması ya da bu el kitabına güvenilmesi sonucu herhangi bir şekilde ortaya çıkabilecek veya çevirideki yanlışlıklardan, eksikliklerden ya da hatalardan kaynaklanan doğrudan, dolaylı, ceza gerektirici veya sonuç olarak ortaya çıkan zararlardan hiçbir şekilde sorumlu tutulamaz.

Read the separate safety manual before installing, operating, or servicing

Güvenlik kitabını oku

PELLERIN MILNOR CORPORATION POST OFFICE BOX 400, KENNER, LOUISIANA 70063 - 0400, U.S.A.

Uygulanabilir Milnor® Model numarasına göre ürünler: [Applicable Milnor® products by model number:]

42044SP2 42044SP3 60044SP2 60044SP3 72044SP2

İçindekiler Tablosu [English table of contents follows]

Bölüm 3. Sinyaller ve hatalar

Table of Contents

Bölüm 1 Kontroller

Chapter 1 Controls

BICWCO02 (Published) Book specs- Dates: 20070404 / 20070404 / 20070404 Lang: TUR01 Applic: CWS

1.1. Yıkama Sıkma Makinelerdeki Mark VI Devrilmez Sabit makineler Kontroller

Controls on Mark VI Non-Tilting Washer-extractors

Bu dokümanın diğer kısımlarına bakın (Bölüm 1.1.2 den Bölüm 1.1.4) bağımsız kontrollerin temel fonksiyonları ve yerleri için. Bu dokümanı makineyi çalıştırma kılavuzu olarak görmeyiniz.

Refer to other parts of this document (Section 1.1.2 through Section 1.1.4) for the location and basic function of individual controls. Don't use this document as instructions for operating the machine.

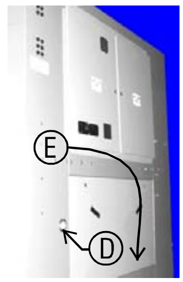
1.1.1. Kontroller nerededir ?

Where are the Controls?

Normal işlemler için gerekli olan kontroller ön panel üzerinde yerleştirilmiştir (Rakam 1). Diğer ilave kontroller aşağıda tarif edildiği gibi makinenin değişik yerlerine yerleştirilmişlerdir.

The essential controls for normal operation are located on the front control panel (Figure 1). Additional controls and connections are located elsewhere on the machine, as described here.

Rakam [Figure] **1: Kontrollerin Yerleri [Locations of Controls]**

Ön sol Görüntüsü [Front Left View]	**Arka Görüntüsü [Rear View]**	**Kılavuz [Legend]**
		**A.** Mikroprosesor Kontrol Kutusu (68036F_B gösterilmiştir.) [Microprocessor control box (68036F_B shown)] **B.** Kontrol Paneli [Control panel] **C.** El ile besleme Flaş Butonu [Manual supply flush button] **D.** Yükleme kapısı için Hidrolik basınç Göstergesi [Hydraulic pressure gauge for loading door] **E.** Devirmeli makineler için Hava basınç (arkada, arka alt panelde) [Air pressure gauge for tilt system (behind lower rear panel)]

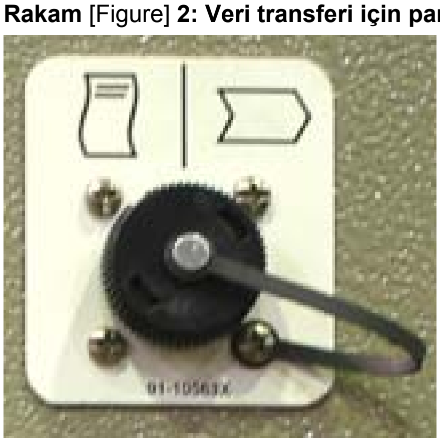
1.1.2. Veri saklama aleti nereye takılmalıdır?

Mikroprocessor kutusu makinenin arka sol tarafındaki panel üst sol köşesindedir.(bak Rakam 1) paralel iletişimler için DIN-type içerir. Hafıza konfigrasyonlarını ve makine programlamayı yenilemek ve saklamak için seri veri transfer aleti ile, Rakam 2 de gösterildiği gibi etiketlenmiş olan, bu bağlantıyı kullanın.

Where do I Connect the Data Storage Device?

The microprocessor box in the upper rear corner of the machine left side panel (see Figure 1) contains a DIN-type connection for serial communications. Use this connection, labelled as shown in Figure 2, with a serial data transfer device to save or restore machine programming and configuration memory.

Rakam [Figure] **2: Veri transferi için paralel Bağlantı [Serial Connection for Data Transfer]**



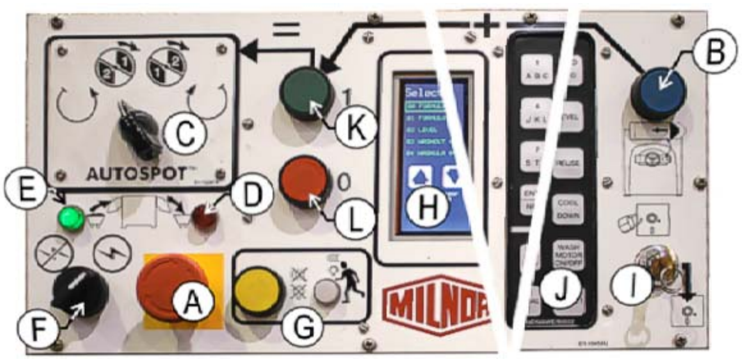
1.1.3. Operasyon Kontrolleri Nelerdir? What are the Operating Controls?

Ana işletim kontrolleri makineyi başlatmak, durdurmak, yıkama programı seçmek, ve yıkama işlemini gözlemlemek için gereklidir.

The primary operating controls are required to start and stop the machine, select wash formulas, and monitor machine operation.

Rakam [Figure] **3: Mark VI Staph Guard Kirli Taraf kontrolleri [Mark VI Staph Guard Soil Side Controls]**

Kontrol Paneli [Control Panel]



Kılavuz [Legend]

A. *Acil stop* buton [*Emergency stop* button]
B. *Kapı Açma* buton [*Door unlock* button]
C. *Jog/Autospot Seçici Anahtarı* sviç [*Jog/Autospot selector* switch]
D. *Temiz taraftaki kontrol paneli* Endikator [*Control on clean side* indicator]
E. *Kirli taraftaki kontrol paneli* Endikator [*Control on soil side* indicator]
F. *Ana şalter* enerji için [*Master switch* for power]
G. *Operatör sinyali* ve *sinyal iptal* buton [*Operator signal* and *signal cancel* button]
H. Likit Kristal Grafik Ekranı [Liquid crystal graphic display]
I. *Run/Program anahtarı* [*Run/Program keyswitch*]
J. Klavye [Keypad]
K. *Başla* buton [*Start* button]
L. *Stop* buton [*Stop* button]

Rakam [Figure] **4: Klavye [Keypad]**



Rakam [Figure] **5: Tipik Staph Guard Temiz taraf Kontrol paneli [Typical Staph Guard Clean Side Controls]**

Kontrol Paneli [Control Panel]	Kılavuz [Legend]
	**A.** *Acil stop* buton [*Emergency stop* button] **B.** *Kapı Açma* buton [*Door unlock* button] **C.** *Jog/Autospot Seçici Anahtarı* sviç [*Jog/Autospot selector* switch] **D.** *Temiz taraf Kontrol paneli* Endikator [*Control on clean side* indicator] **E.** *Kirli taraf Kontrol paneli* Endikator [*Control on soil side* indicator] **F.** *Kontrol transfer* buton [*Control transfer* button] **G.** *Jog/spot* buton [*Jog/spot* button]

Acil stop butonu—Üç fazı devre dışı bırakır. Bu sviçe basıldığında kilitler. Normal çalıştırma pozisyonuna getirmek ve makinenin tekrar çalışmasını sağlamak için çeyrek dönüş yaptırmalısınız.

uyarı 1: Acil durumlarda bu *Acil stop* butona derhal basınız. Bu üç faz akımını kesecektir. Böylece makine duracak ve drenaj açılacaktır.

Emergency stop button—disables the 3-wire circuit. This switch locks in when pressed, so you must turn it a quarter turn to allow it to return to the normal position to allow the machine to run.

Notice 1: Press the *emergency stop* button immediately in any emergency situation. This disables the 3-wire circuit, which stops all machine operation and causes

- Bu buton reset edildiğinde, durdurulan formulanın iptali veya devamı yönünde seçeneğiniz olacaktır. Programın işleyişine bağlı olarak Formula kesildiği yerden veya bir önceki aşamanın başından devam eder, ancak bu *Acil stop* butona basılmışsa.

Ana enerji şalteri (/)—Kontrol sisteminden enerjiyi kaldırır. Formula çalışıyorken bunu *Ana şalter* off 'a çevirirseniz, ( ), sonucu bu *Acil stop* butona basma ile aynı olacaktır: makine duracak drenaj açılacaktır. Farklı olarak bu *Acil stop* buton, enerjinin kesildiği andaki stepten formulayı başlatacak, ancak kimyasal enjekte etmeyecektir.

Operatör sinyalini kesme butonu ( )—*Operatör sinyali* iptal eder. Bu butona basarak sinyal sesini kesebilirsiniz ve bu *Operatör sinyali* ışığı söndürebilirsiniz, (bakınız aşağıda), veya programlanmış kimyasal enjeksiyona yol verebilirsiniz eğer bu sinyal ile irtibatlı ise.

Operatör sinyal ışığı—Makinenin bir hata ile karşılaştığını ifade eder veya kullanıcının bazı işlemleri yapması gerektiğini ifade eder; ya da bu *Başlat* butonuna basması gerektiği veya makineyi boşaltması gerektiği gibi. Bu *Operatör sinyali* akım kontrol panelinin arkasında bir zil içerir ve ayrıca panelde monte edilmiş uyarıcı bir ışık ile tamamlanmıştır.

Likit kristal Grafik Gösterge—Makineye yardımcı olacak bilgiler gösterir. Bu bilgiler kullanıcının seçtiği işleme göre ve makinenin bulunduğu çalışma durumuna göre değişiklik gösterir.

Klavye—Operatörün makine kontrol sistemi ile iletişimini sağlar. Klavye üç kısma bölünmüştür. Harf ve rakam içeren tuşlar; genel tuşlar ve özel fonksiyon tuşları şeklinde. O anki makine durumuna göre her tuş birden fazla fonksiyon görebilir. Bazı tuşlar da başka tuşlarla birlikte kullanılarak ilave fonksiyonlar yaratılabilir.

the drain to open.

- When you reset this button, you have the option of cancelling or resuming the interrupted formula. The formula resumes where it was interrupted or at the beginning of the previous bath step, depending on the operation in progress when the *emergency stop* button was pressed.

Master power switch (/)—removes power from the control system. If you turn the *master switch* off ( ) while a formula is running, the immediate result is similar to pressing the *emergency stop* button: the machine stops and the drain opens. Unlike the *emergency stop* button, resumed formulas start at the beginning of the step in which power was lost, but chemicals are not injected in the resumed step.

Operator signal cancel button ( )—cancels the *operator signal*. Press this button to silence the buzzer and turn off the *operator signal* light (see below), or to allow injection of a chemical programmed to require a signal before injection.

Operator signal light—indicates that the machine has encountered an error or that the operator must perform some action, such as pressing the *start* button or unloading the machine. The *operator signal* circuit includes a buzzer behind the control panel, and may include an optional beacon light mounted separately from the control panel.

Liquid crystal graphic display—displays information and help about the machine. The information on the display changes according to the status of the machine and the function selected by the operator.

Keypad—allows the operator to communicate with the machine control system. The keypad is divided into three areas: alphanumeric buttons, general buttons, and function-specific buttons. Each button may perform more than one function, based on the current machine status. Some buttons are also used in combinations for additional functions.

Başlat Butonu (①)—Seçilen yıkama programını başlat. Bu *başlat* buton üç faz akımına, makinenin çalışmasını sağlamak için, yol verir.

Start button (①)—starts the selected wash formula. The *start* button energizes the 3-wire circuit to allow the machine to operate.

Durdur butonu (⓪)—Makine operasyonunu durdurur. Bu *Acil stop* buton gibi, bu *Durdur* buton üç faz akımını keser; ancak, bu *Durdur* buton manuel olarak tekrar resetlemeyi gerektirmez.

Stop button (⓪)—stops machine operation. Like the *emergency stop* button, the *stop* button disables the 3-wire circuit; however, the *stop* button doesn't require you to manually reset it after use.

Çalıştır/Program anahtar sviçi (/)—bu *Program* pozisyonda, diğer aksiyonlarının yanı sıra, makinenin konfigrasyonunun ve yıkama programının değiştirilmesine izin verir. Bu normal *Çalıştır* pozisyonda, formüller ve konfigrasyon koruma altındadır ve çalıştırılabilir.

Run/Program keyswitch (/)—in the *Program* position, allows changes to machine configuration and wash formulas, among other actions. In the normal *Run* position, formulas and configuration are protected and formulas can be run.

1.1.4. Bu Sviç ne işe yarar ?

Diğer butonlar ve sviçler makinenin opsiyonel ve ilave standart fonksiyonlarını görmek için kullanılırlar. Bu farklı kontroller burada yer almakta ve tanımlanmaktadırlar.

What does this Switch do?

Other buttons and switches are used to control additional standard and optional machine functions. These miscellaneous controls are located and described in this section.

Mildata/Yerel Seçim Sviçi (Rakam 6)—mikroprosesor kontrol kutusunda yer alır (bak Rakam 1), ve makinenin Mildata ağı ile iletişimini sağlar. Mildata bilgisayar ağına birden fazla makine bağlantısı yapılabilir, hepsi aynı anda bilgileri paylaşabilir, formülleri kullanır, mevcut veri bankasından faydalanırlar. Bu sviç *Mildata* pozisyonunda iken ( ) ve Formula numarası girdiğinizde, makine Mildata Bilgisayarından formulanın içeriğini ister. Bu *Yerel* pozisyona alındığında ( ), sadece görülen Formula **Makinedeki** uygun demektir.

Mildata/Local selector switch (Figure 6)—located on the microprocessor control box (see Figure 1), allows the machine to communicate with a Mildata network. A Mildata network connects several machines together and allows them to share wash formulas and other data with the Mildata computer. When this switch is in the *Mildata* position ( ) and you enter a formula number, the machine requests the contents of the formula from the Mildata computer. When set to the *Local* position ( ), only formulas present **in the machine** are available.

Rakam [Figure] **6: Mildata/Yerel Tercih sviçi [Mildata/Local Selector switch]**



Manuel ikmal püskürtme butonu (Rakam 7)—Opsiyonel püskürtme enjeksiyon

Manual supply flush button (Figure 7)—On machines equipped with an optional

sistemli makinelerde, kalan kimyasalın tambura püskürtülmesi için bu su püskürtme butonuna basınız. Böylelikle püskürtülen su yardımı ile, kimyasal tambura enjekte olacaktır. Eğer manuel olarak ilave kimyasal konuluyorsa, yine bu butona basarak kimyasal kanalında kalan deterjanı da ilave etmiş olursunuz. Eğer makineniz opsiyonel ikmal enjektörlü ise, bu butona basarak, taze su ile beraber kimyasalı enjekte edebilirsiniz.

flushing supply injector, press this button to spray water into the supply injector to flush any remaining chemicals into the cylinder. If you manually add supplies during a wash formula, press this button to flush any remaining undiluted chemicals out of the supply chute. If the machine is not equipped with the optional supply injector, press this button to flush the liquid chemical inlets with fresh water.

Rakam [Figure] **7: Manuel İkmal Püskürtme Butonu [Manual Supply Flush button]**



Otomatik Tambur Seçim Sviçi (Rakam 8)— Bazı bölünmüş tamburlu makineler yükleme ve boşaltma işlemine yardımcı olması için bu *Otomatik pot* özellik ile donatılmıştır. Bu opsiyonel özellik otomatik olarak tamburun içinde çalışılacak kısmının pozisyonunu düzenler.

Autospot selector switch (Figure 8)—Some divided-cylinder machines are equipped with the *Autospot* feature to aid in loading and unloading. This optional feature optimally positions the basket for access to the selected pocket.

Rakam [Figure] **8: Otomatik tambur Seçim Sviçi [Autospot selector switch]**



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— End of BICWCO02 —

Bölüm 2 Normal Operasyon

Chapter 2 Normal Operation

BICWCO03 (Published) Book specs- Dates: 20070404 / 20070404 / 20070404 Lang: TUR01 Applic: CWS

2.1. Tesis personeli için İşletme Talimatı

Operating Instructions for Plant Personnel

2.1.1. Güvenlik için buradan başlayın

Bu doküman, ile makineyi çalıştıracak personelin gerek duyacağı bilgileri içerir. Size detaylı olarak anlatılmadan makineyi kullanmaya girişmeyin.

Start Here for Safety

This document is meant to remind you, the person operating this washer extractor, of what is required to operate this machine. Do not attempt to operate this machine before an experienced, trained operator explains the details to you.



TEHLİKE [2]: Çoklu Tehlike—Yetkisiz ve dikkatsiz kullanıcıların makineye müdahaleleri, kişisel kazalara, ölümlere sebep olabilir ve ayrıca makineye kalıcı hasar verebilir, bu durum garanti şartlarını geçersiz kılar.

DANGER [2]: Multiple Hazards—Careless operator actions can kill or injure personnel, damage or destroy the machine, damage property, and/or void the warranty.



TEHLİKE [3]: Elektrik çarpması ve kısa devre yangın Tehlikesi—Elektrik ile temas etmeyin. Ölüm veya ciddi kalıcı sakatlıklara sebep olabilir. Makinenin ana şalteri açık iken elektrik panosuna müdahale etmeyin. Panoda çalışma yapmadan önce mutlaka ana şalteri kapatınız.

- Elektrik panosu kapaklarını açmayın yada kapatmayın.
- Makinenin ana şalterinin nerede olduğunu öğreniniz ve acil müdahalelerde nereden kapatacağınızı biliniz.
- Bilgisiz ve yetkisiz durumda müdahale etmeyiniz. Tehlikelerin açıkça farkında olmalısınız ve nasıl yok edileceğini bilmelisiniz.

DANGER [3]: Electrocution and Electrical Burn Hazards—Contact with electric power can kill or seriously injure you. Electric power is present inside the cabinetry unless the main machine power disconnect is off.

- Do not unlock or open electric box doors.
- Know the location of the main machine disconnect and use it in an emergency to remove all electric power from the machine.
- Do not service the machine unless qualified and authorized. You must clearly understand the hazards and how to avoid them.

DİKKAT 4: Çarpışma, Ezilme ve sıkışma Tehlikesi —Hareketli parçalarla temas normalde kapak, panel gibi elemanlarla korunmuştur, ancak kol veya bir tarafınızın ezilme ve sıkışması konusuna dikkat ediniz. Bu komponentler otomatik olarak harekete geçtiğinden yaratabileceği tehlikelere karşı önlem alınız.

CAUTION 4: Collision, Crushing and Pinch Hazards—Contact with moving components normally isolated by guards, covers, and panels, can entangle and crush your limbs. These components move automatically.

2.1.2. Switch set değerlerini kontrol edin. / Check Switch Settings

Göster veya uygula [Display or Action]	Açıklama	Explanation
	Kontrol edin *run/program* Ana şalterin de olduğunu.	Check that the *run/program* keyswitch is at .
	Bütün emergency (acil) stop butonları açık olmalı ve *Hazır* pozisyonunda bırakılarak makine operasyonuna izin vermelidir.	All emergency stop buttons must be unlatched and in the *ready* position to allow machine operation.
/	Ana şalterin pozisyonda olmasını sağla.	Check that the master switch is at .

2.1.3. StaphGuard® Makineyi nasıl yüklerim? / How do I Load a StaphGuard® Machine?

Göster veya uygula [Display or Action]	Açıklama	Explanation
+	Bu Dış kapıyı açın.	Open the outer door.
	Yüklemek için tambur bölmesi seçin.	Select a pocket to load.
+	Seçilen tambur bölmesi ile dış kapısıyla hizalayın.	Align the selected pocket with the outer door.
	Birinci tambur bölmesini yüklemek için iç kapıyı açın.	Open the inner door of the first pocket to load.

Tesis müdürlüğünün tarif ettiği şekilde makineleri yükleme prosedürünü uygula.

Use the procedure defined by facility management to put the goods in the machine.

	İç kapıyı kapatın ve sürgüleyin.	Close and latch the inner door.
	Birinci tambur bölmesini yüklemek için iç kapıyı açın.	Open the inner door of the first pocket to load.

Tüm tambur bölmelerinin benzer çamaşır ile yüklendiğini ve eşit ağırlıkta olduğunu doğrulayın.

Verify that all pockets are loaded with similar goods to about the same weight.

2.1.4. Formula/program nasıl seçerim?

Mark VI controller modu *local* çalıştırılabilir veya *Mildata* modu. Bu *local* modda, makine herhangi bir kısım ile iletişim kurmaz ve local kontrol hafızası nedeniyle program çalıştırmaz. Bu *Mildata* moda ise makine Mildata Computer' den Formula/program indirir ve çalıştırır, ve sıklıkla Mildata Computer de ekranı güncelleştirir.

How do I Select a Formula?

The Mark VI controller can operate in either *local* or *Mildata* mode. In *local* mode, the machine does not communicate with any other devices and runs formulas contained in local controller memory. In *Mildata* mode the machine downloads and runs formulas from the Mildata computer, and frequently updates the display on the Mildata computer.

Rakam [Figure] **9: Seçim Local veya Remote Formula [Selecting a Local or Remote Formula]**

***Program Seç* Ekranlar/Göstergeler [*Select Program* Displays]**



Kılavuz [Legend]

A. Local (Mildata yok veya ulaşılamaz) [Local (Mildata not present or enabled)]

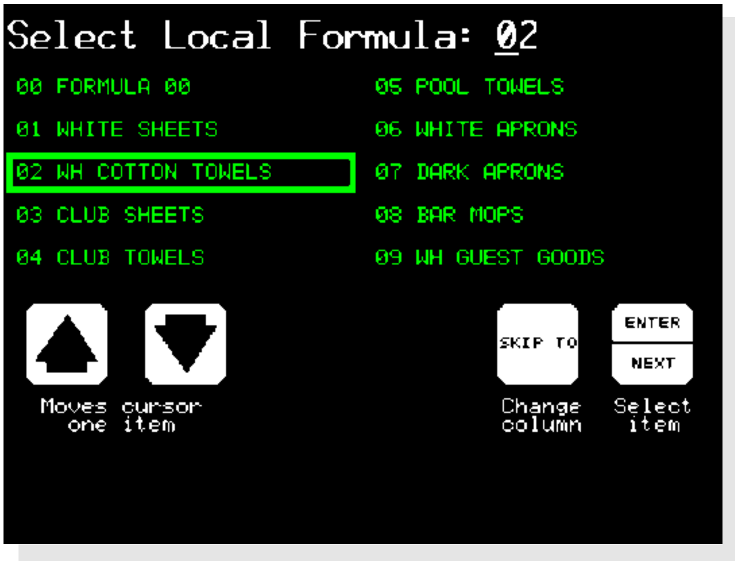
B. Remote (Mildata ulaşılamaz) [Remote (Mildata enabled)]

2.1.4.1. Seçim Local Formula

Seçim Local Formula—Eğer makine Mildata network'unun (iş ağının) bir parçası değilse veya Mildata network (iş ağı) ulaşılamıyorsa makinenın kendi (local) hafızasında mevcut yıkama programlarından (Formulalardan) herhangi biri seçilebilir. Bu *Seç Local Formula* ekranını kullanın (Rakam 10) makine içindeki malları doğru programla (Formula ile) yıkamak için.

Selecting a Local Formula—If the machine is not part of a Mildata network, or if the Mildata network is not available, you can choose from any of the wash formulas stored in local memory on the machine. Use the *Select Local Formula* screen (Figure 10) to choose the correct formula for the goods in the machine.

Rakam [Figure] **10:** ***Seç Local Formula*** **Ekran [*Select Local Formula* Screen]**



Göster veya uygula [Display or Action]	**Açıklama**	**Explanation**
0 7	Direkt çalıştırmak istediğiniz formulayı/programı seçin. (07, örneğin). İki haneli rakam girdiğinizde seçilen Formula/program ekrandaki sol kolonun en üst kısmına taşınır.	Directly selects the formula you want to run (07, for example). When you enter a two-digit number, the selected formula moves to the top of the left column on this screen.
SKIP TO	Eğer gerekliyse Formula değişimi için kolonu değiştirebilirsiniz. Eğer çalıştırılacak arzu edilen Formula /program ekranda görülüyor fakat seçim kutusunun ters kolonunda bulunuyorsa bu tuş dokunuşu terçih kutusunu oteki kolondaki Formulalara dahil eder.	Toggles the column for formula selection if necessary. If the desired formula is visible on the screen, but is in the opposite column from the selection box, this keystroke moves the selection box to the other column of formulas.
↓ / ↑	Mevcut kolonda önceki ve sonraki Formula/programlarını hareket ettirebilirsiniz. Ekranda çalıştırılacak Formula görülüyorsa ve tercih kutusunun aynı kolonunda ise , böylece aşağı yukarı okları kullanarak seçim kutusundan istenen Formula seçilebilir.	Move to the next or previous displayed formula in the current column. If the desired formula is visible on the screen and in the same column as the selection box, you can use these two keys to move the selection box down or up to select the formula.

Göster veya uygula [Display or Action]	**Açıklama**	**Explanation**
ENTER	Seçilen Formula /programı onayla.Seçim kutusuna çalıştırılacak Formula/programı yerleştir ve u bas normal yıkama işlemi devam etsin.	Confirm the selected formula. Place the selection box on the formula you want to run, then press ENTER to continue with the normal operation procedures.

Ek 1

Yükleme ağırlığı hakkında ve *Ölçülen Su*

Ölçülen Su Mark VI kullanan flow metreli (opsiyonel) çamaşır makinelerinin gelen su hattında mümkündür. Bu özellik Mark VI konrollor'in su miktarının Formula seçildikten sonra yüklenen çamaşır ağırlığına göre oranlayarak alınmasına izin verir. Eğer ağırlık olarak 200 birim girerseniz, hemen program sanki 2 adet 100 birim girmişsiniz gibi işlem görürü. Bu opsiyon önemli bir miktarda su tasarrufu yapmanıza yol açar, eğer ki ağırlık doğru olarak girilirse.

Supplement 1

About Load Weight and *Metered Water*

Metered water is available on Mark VI washer-extractors equipped with optional flow meters on the incoming water lines. This feature allows the Mark VI controller to admit a quantity of water proportional to the weight of goods you enter after selecting the formula. If you enter a weight of 200 units when prompted, the machine will use twice as much water as if you entered 100 weight units. This option can save a significant amount of water if you enter accurate weights for each load.

Rakam [Figure] **11: Ölçülen Su için çamaşır yükünü (ağırlığını) girmek. [Entering Load Weight for Metered Water]**



Göster veya uygula [Display or Action]	Açıklama	Explanation
	Makineye yüklenen çamaşırın ağışığını girin. Programlanan yıkama formülüne göre kontroller bu ağırlığı kullanarak ne kadar su alınması gerektiğini belirler.	Enter the weight of the goods loaded in the machine. The machine controller uses the weight to determine how much water is needed to wash the goods according to the programmed wash formula.
	Yüklenen çamaşır ağırlığını kabul et ve devam et.	Accept the entered goods weight and continue.

2.1.4.2. **Mildata Formula seçme**—Eğer makine Mildata ağının bir parçası ise Mildata daki mevcut herhangi bir formül seçilerek yıkama işlemi yapılabilir. *Remote Formula seç* ekranı kullan (Rakam 12) makinedeki çamaşır için en iyi yıkama formülünü seçmek için.

Not 1: Mildata computer de 1000 farklı formül yapılabilir ve saklanabilir. Bütün bu yıkama programları Mildata ağına bağlı ve uygun cihazlara sahipseniz ulaşabilirsiniz.

Selecting a Mildata Formula—If the machine is part of a Mildata network and the network is available, you can choose any wash formula stored on the Mildata computer. Use the *Select Remote Formula* screen (Figure 12) to choose the best formula for the goods in the machine.

Note 1: You can store up to 1000 different wash formulas on the Mildata computer. All of these formulas are available to all washer-extractors that are part of the Mildata network and have compatible hardware.

Rakam [Figure] **12:** ***Remote Formula Seç*** **Ekran [*Select Remote Formula* Screen]**



Göster veya uygula [Display or Action]	**Açıklama**	**Explanation**
0 9 2 8	Seç formula 928 (örneğin)Mildata computer de bulunan. Mark VI controller requests the formula from the Mildata computer den formulayı isteyecek ve Formula ismini gibi Rakam 12 gösterecek.	Select formula 928 (example) stored on the Mildata computer. The Mark VI controller requests the formula from the Mildata computer and displays the formula name, as shown in Figure 12.
ENTER	Ekranda gösterilen ve çalıştırmak istediğiniz formulayı teyid edin. Eğer yüklenen çamaşıra uygun bir Formula değilse c e bas, Formula numarasını silin ve diğer istediğiniz numarayı girin.	Confirm that the displayed formula name is the formula you want to run. If the displayed formula isn't the right one for the loaded goods, press CANCEL to clear the formula number, then enter another number.

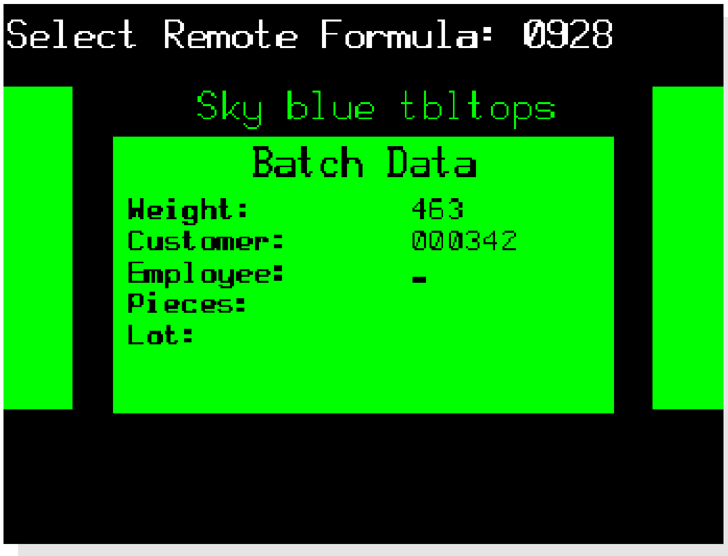
Formula daki düzeltme ve onaydan sonra Mark VI controller belirlenen diğer işleme geçer *Yıkama (batch) verisi*.

After you've retrieved and verified the formula, the Mark VI controller prompts for any configured *batch data*.

2.1.4.3. **Girme *Mildata Yıkama (batch) kodları***—Mark VI Kontroller aynı ekranı kullanır Rakam 13 makine konfigrasyonunda tanımlanan yıkama alanına aktarmak için (bak Dökümandaki ilgili bölüm BICWCC01). Girilen veriler Mildata Komputerine hesap ve rapor oluşumu için aktarılır.

Entering *Mildata Batch Codes*—The Mark VI controller uses a screen similar Figure 13 to prompt you for the batch data fields selected in machine configuration (see the related section in document BICWCC01). The data you enter is sent to the Mildata computer for accounting and report generation.

Rakam [Figure] **13: Remote Formula Operasyonu için Yıkama (Batch) verileri [Batch Data for Remote Formula Operation]**



Ağırlık—makineye yüklenen çamaşırın ağırlığı. Bu bilgi genellikle diğer yıkama bilgileri ile birlikete müşteri faturası ve personel verimliliğini hesaplamak için kullanılır. Su miktarını ölçmek için makineler Flow metreli ise (opsiyonel) bu durumda her bir yıkama (batch), ağırlık bu yıkama için gerekli olan su miktarını da tanımlayacaktır. Ağırlık bilgisi en fazla üç basamaklı rakam olabilir.

Müşteri Kodu—Müşteri için belirleyici koddur. Bu bilgi size her bir müşterinin ne kadar iş getirdiğini tanımlar.Bu kod için on haneli rakam kullanılabilir.

Çalışan Numarası—Yıkama işleminden sorumlu personeli belirler. Bu kod beş haneye kadar olabilir.

Adet—Makinede yıkanan çamaşırın adetidir. Bazı durumlarda çamaşır ağırlığının yerine kullanılır, özellikle faturalama ağırlık yerine adet üzerinden yapıldığında. Dört haneli kod kullanılabilir.

Lot Numarası—Müşterinin çamaşırları kaç seferde yıkanabildiğini belirler. the identifying code for several related batches or customers. İstediğiniz zamanda girilen bu değer birçok hesabı kapsayacak rotayı temsil etmelidir. Lot numarası on dijitli rakam

Weight—the weight of the batch of goods in the machine. This information is usually used along with other batch data to calculate customer charges or employee productivity. In machines equiped with optional flow meters and configured for metered water, the weight value is also used to determine how much water is required to process the batch. The weight value can be up to three digits.

Customer Code—the identifying code for the customer. This information can help you determine how much work each customer is submitting. Ten digits are available for customer code.

Employee Number—the identifying code for the employee responsible for this batch. The employee number may be up to five digits long.

Pieces—the number of pieces in the machine. This value sometimes replaces the weight value, especially when charges are made by the piece rather than by weight. Four digits are available for the number of pieces.

Lot Number—the identifying code for several related batches or customers. At your discretion, the value entered here might represent a particular route number common to several accounts. A lot number can be up to 10 digits long.

olabilir.

2.1.5. Seilen Formula ya başla

Çalıştırmaya başlamadan önce bütün bu aşamaları tamamladığınızdan emin olun.

1. Makineyi yükleme kapasitesine yakın bir şekilde yüklediniz.
2. Makinedeki mevcut yıkama proglarından en uygun olanını seçtiniz.
3. Yıkama (batch) bilgilerini makine kontrolorünün ölçümlenen su isteğine veya Mildata raporlamasına uygun olarak girdiniz.
4. Kapıyı kapattınız.

Start the Selected Formula

Be sure you've completed these steps before you go any further in the operating procedure.

1. You've loaded the machine at or near its rated weight capacity.
2. You've selected a formula that's appropriate for the goods in the machine.
3. You've entered any batch data the machine controller requires for metered water or Mildata reporting.
4. You've closed the door.

Göster veya uygula [Display or Action]	**Açıklama**	**Explanation**
①	Seçilen formulaya başla.	Start the selected formula.

Makine yıkama programını başlatır. Makine tamburu dönmeye başlar ve su valfleri açılır. Emniyetli seviyeye gelindiğinde, buhar valfleri ısıtma yapmak için devreye girer. Operasyon bundan sonra yıkama işleminin sonuna kadar otomatik olarak çalışır. Sadece kimyasal enjeksiyonu için sinyal programlanmışsa hariçn (bak Ek 2).

The machine begins the wash formula. The basket begins turning and water valves open. When a safe level is achieved, the steam valve may open to begin heating the bath. Operation from this point to the end of the formula is completely automatic unless a signal is programmed with a chemical injection (see Supplement 2).

Ek 2

Operator sinyali ile kimyasal enjeksiyonları

Çok fazla değişebilen faktöre bağlı olarak eğer kimyasal enjeksiyonunu her yıkama işlemi için farklılaştırmak isterseniz, kimyasal istenen aşamada timer ve sinyal durdurulabilir. Kimyasal ilave edilebilir ve sonra e basarak programa devam edilebilir.

Supplement 2

Chemical Injections with the Operator Signal

If you need to adjust the amount of a chemical injection from load to load depending on highly variable factors, the formula can be programmed to stop the timer and signal you when a chemical is required. Add the chemical, then press to resume the formula.

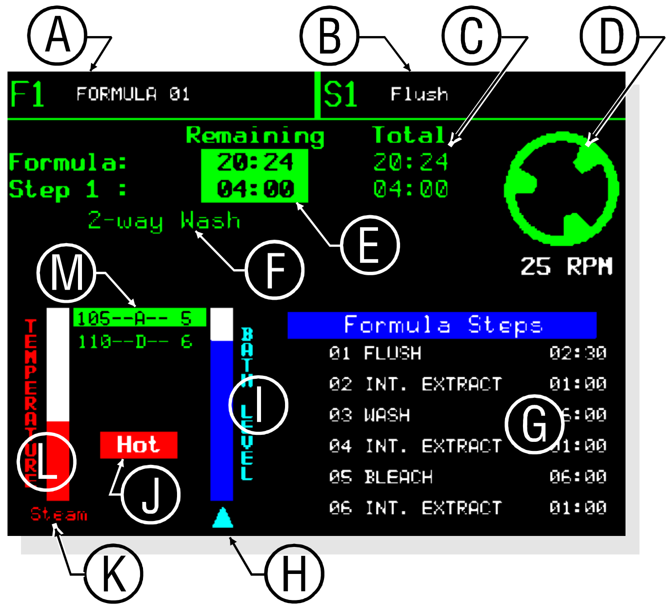
2.1.6. Göstergesi *Çalış (Run)* bana ne anlatır?

Makine seçilen programda çalışıyorken ekran gösterilene benzer şekilde görülür Rakam 14. Ekranda gösterilen bilgiler aşağıda açıklanmıştır.

What Does the *Run* Display Tell Me?

While the machine is running the formula you selected, the display appears similar to the one shown in Figure 14. The information shown here is explained below.

Rakam [Figure] **14: Ekranı *Çalış (Run)* nasıl okursun [How to Read the *Run* Display]**

Tipik Ekran [Typical Display]	Kılavuz [Legend]
	**A.** Formula ismi ve numarası [Formula number and name] **B.** Aşama (Step) ismi ve numarası [Step number and name] **C.** Formula için toplam zaman ve mevcut aşama (step) [Total time for formula and current step] **D.** Tambur dönüş grafiği ve hızı [Basket rotation graphic and speed] **E.** Tüm Formula için kalan zaman ve mevcut aşama(step) [Remaining time for entire formula and current step] **F.** Makine durum mesajı [Machine status message] **G.** Formula aşamaları: numara, isim, ve süre [Formula steps: number, name, and duration] **H.** Doldurma ve boşaltma için endikatör [Indicator for filling or draining] **I.** Grafik banyo seviye endikatörü [Graphic bath level indicator] **J.** Su valfleri endikatörü [Water valves indicators] **K.** Opsiyonel buhar ve soğutma valfleri endikatörü [Indicator for optional steam and cooldown valves] **L.** Grafik banyo sıcaklık endikatörü [Graphic bath temperature indicator] **M.** Banyo sıcaklığı ve seviye verisi [Bath temperature and level data]

2.1.6.1. Formula ve Step Bilgisi

Formula ve Step Bilgisi—Ekranın en üst satırı daima mevcut Formula ve step ismi ve numarasını gösterir. *Formula numarası* ekranın enüst sol köşesinde belirir, sonra harfi "F."ve *formula ismi* numarası görülür.

Formula and Step Information—The top line of the display always shows the number and name of the current formula and step. The *formula number* appears in the upper left corner of the display, following the letter "F."The *formula name* follows the number.

Bu *Mevcut stepin isim ve numarası* Formula bilgisinin sağında görülür. Mark VI kontroller ekranda Formula çalıştığı zaman ismini, numarasını ve her stepte bulunduğu aşamayı gösterir.

The *step number and name of the current step* are displayed to the right of the formula information. The Mark VI controller updates the formula number and name when a formula starts and at the beginning of each subsequent step.

Aşağıdaki Formula step ismi ve *Süre bilgisi* dir. Kolondaki "Toplam"numara (yeşil numara) Formula için gerekli toplam süreyi gösterir. Aynı zamanda çalışan stepi gösterir. Not 2 de gösterilen tanımlanmış faktörler hariç. Kontroller Formula başladığında değeri "Formula" hesaplar ve bu değer Formula çalıştığında değiştirilemez. Kontroller her bir stepin değeri "Step x" hesaplar ve gösterir.

Below the formula and step names is *time information*. The numbers in the "Total" column (green numbers) show the total time required for the formula and step to run to completion, not including the factors described in Note 2. The controller calculates the "Formula" value when the formula begins, and this value doesn't change while the formula is running. The controller calculates and displays the "Step x" value at the start of each step.

Zaman bölümünün "Kalan" kolonundaki numaralar (yeşil zemindeki siyah numaralar) formulanın mevcut aşamasının *Kalan süre* sini gösterir. Bu numaralar kalan sürenin **En az** miktarıdır.(bak Not 2).

The numbers in the "Remaining" column of the time area (black numbers on a green background) indicate the *time remaining* in the formula and in the current step. These numbers indicate the **minimum** amount of time remaining (see Note 2).

Not 2: Bazı yıkama formullerinin durumu tahmin edilemez, böyle durumda Kontroller zaman sayacını durdurur ve değerin girilmesini bekler. Örneğin makineye istenen su miktarını doldurmak için gerekli zamanı belirlerken, tesisin su basınç durumuna, gelen su borularının çapına, ve aynı anda kaç makinenin doldurulduğuna dayanan hesap yapılmalıdır. Doldurma süresinin belirlenmesinin yanı sıra, istenen su sıcaklığına varmak için gerekli olan sürede belirlenmelidir. Veya farklı kimya-sal enjeksiyonu için farklı sürelerin belirlenmesi gibi operator uygulamaları olabilir. Hata durumları da süreyi(zaman sayacını) durdurabilir.

Note 2: The duration of some wash formula events can't be estimated, so the controller stops the timer until a requirement is met. For example, the time required for the machine to fill to the desired level depends on the water pressure to the plant, the size of the piping to the machine, and how many other machines are filling at the same time. In addition to the time required to fill, the time required to achieve temperature or for an operator to verify a chemical injection are variable. Error conditions can also stop the timer.

Kontroller mevcut *Makine durumu* gösterir. Aşağıdaki step numaraları ve kalan süreyi. Muhtemel bazı makine durum mesajları Tablo 1 listelenmiştir.Hata mesajı anında istenildiğinde makine durum mesajının altında görülebilir.

The controller displays the current *machine status* below the step number and remaining time. Some of the possible machine states are listed in Table 1. Error messages appear immediately below the machine status message when required.

Tablo 1: Makine durum mesajı [English table follows]

Boş	Çalışmaya Hazır
1-Yıkamada	Boşaltmayı bekliyor
2-Yıkamada	Çamaşır yükleme bekliyor
ıslatma	Enerjilenmede geçikme
İlk+Son Sıkma	Dranaja su boşaltma
Ara sıkma	Tekrar kullanım için (Reuse) su boşaltma
Son Sıkma	Timer durdu
Çift Sıkma	Lütfen bekle xx Saniye

Table 1: Machine Status Messages

Idle	Coasting
1-way Wash	Waiting to Discharge
2-way Wash	Waiting for Load
Soak	Power-up Delay
Pre+Final Extract	Draining to Sewer
Intermediate Extract	Draining to Reuse
Final Extract	Timer Stopped
Double Extract	Please Wait xx Seconds

2.1.6.2. Tambur dönüşü—*Tambur dönüş grafiği* sağ köşeye yakın köşede gösterge, ilgili tamburun, yıkamadaki hızı ile boşaltma ve sıkma hızlarını gösterir. Tambur dönüş grafiğinin hemen altında ise kontroller arzulanan tambur hızını RPM/dakika olarak veya G faktörü olarak gösterir.

Basket Rotation—The *basket rotation graphic* near the upper right corner of the display represents the relative basket speeds in wash, drain, and extract speeds. Immediately below the basket rotation graphic, the controller displays the desired basket speed in either revolutions per minute (RPMs) or in gravitational units (G's).

2.1.6.3. Banyo sıcaklık ve Seviyesi —*Su valfi endikatörü* ilgili su valfi açık olduğunda görülür.

Banyo sıcaklık endikatörü grafiği makinedeki yaklaşık sıcaklığı gösterir.Dikey endikatör makinenin maksimum sıcaklık derecesi olan 205 fahrenheit dereceye (95 santigrat derece) ulaştığında sabitlenir.

Buhar ve soğutma endikatörleri sıcaklık endikatör grafiğinde herhangi birine yol verildiğinde görülebilir. “Buhar” buhar valfi açık olduğunda görülür, ve “Soğutma” soğutma fonsiyonu devrede ise görülür.

Banyo seviye endikatörü grafiği istenen yüzde seviyeye ulaşıldığını gösterir. Dikey endikatör barı programlanan seviyeye ulaşıldığında sabit mavi olur ve bu tamamen beyaz olduğunda

Bath Temperature and Level—*Water valve indicators* appear when the corresponding water valve is open.

The graphic *bath temperature indicator* shows the approximate temperature in the machine. The vertical indicator bar is solid red when the temperature in the machine is at the maximum allowable value of 205 degrees Fahrenheit (95 degrees Celsius).

The steam or cooldown indicator appears below the graphic temperature indicator when either of these optional features is enabled. “Steam” appears when the steam valve is open, and “Cooldown” appears when the cooldown output is enabled.

The graphic *bath level indicator* shows the percentage of the desired level that's achieved. The vertical indicator bar is solid blue when the programmed level is achieved,

makinede su yok demektir.

and solid white when there is no water in the machine.

Seviye yön endikatör oku yukarıyı işaret ediyorsa makinedeki su seviyesi yükseliyor demektir.(Yani makine su doluyor) ve eğer aşağıyı işaret ediyorsa drenaj açık, su boşaltıyor demektir. Ok istenen su seviyesine ulaşıldığında ve sıkma aşamasında iken yok olur, görülmez.

The *level direction indicator arrow* points upward when the actual bath level in the machine is increasing (when the machine is filling), and points downward when the drain opens. The arrow is not visible when level is achieved, or during extract steps.

Kontroller *Banyo sıcaklık ve seviye datası* nı sıcaklık ve seviye grafik endikatörleri arasında gösterir. Üst satır sıcaklığı ve makinede o an mevcut seviyeyi gösterir ve alt satır ise istenen, arzulanan değerlerdir.

The controller displays *bath temperature and level data* between the temperature and level graphic indicators. The top line displays the temperature and level that are currently achieved in the machine, and the bottom line displays the desired values.

2.1.6.4. **Formula Stepleri ve kimyasal enjeksiyonu**—Formula başladığında, kontroller,*formula stepleri listesi* nde ilk altı aşamayı, stepi ekranın alt sol köşesinde gösterir. Eğer program daha fazla aşama, step içeriyorsa tamamı aynı anda görülebilir. Liste daha fazla step içeren yönde hareket ettirilerek istenen step sayısı bulunur ve işaretlenir.

Formula Steps and Chemical Injection—When a formula begins, the controller displays the first six steps in the *formula steps list* in the lower left area of the screen. If the program contains more steps than can be displayed at one time, the list scrolls to display more steps as the earlier ones end. The current step is highlighted.

Programlanan *Kimyasal enjeksiyon* listesi her bir enfeksiyonda Formula stepleri listesi yerine geçer. Kimyasaldaki işaretli kutu o an enjekte olan kimyasalı gösterir.

The list of programmed *chemical injections* replaces the formula steps list during each injection, with a highlight box on the chemical that's currently injecting.

2.1.7. Makineyi boşalt

Formula sona erdiğinde operatör sinyali ve makine göstergesi makinenin boşaltmayı beklediğini gösterir (bak Rakam 15). Aşağıda belirtilen boşaltma prosedürüne göre boşaltınız.

Unload the Machine

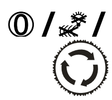
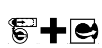
When the formula ends, the operator signal sounds and the machine displays a message that it is waiting to discharge (see Figure 15). Use a procedure similar to the one outlined below to unload the goods.

Rakam [Figure] **15: Formula biterken tipik mesaj [Typical Message when Formula Ends]**



2.1.7.1. Herhangi *Son Kodu*—Mark VI kontroller formulanın sonunda dört muhtemel seçenekten birini programlama izni verir: *Durduruldu*, *Yıkama hızında ters dönüş* , *boşaltma hızında dönüş*, or *Çamaşırı yuvarlama*. İlk üç seçenekte formulada aynı boşaltma prosedürü uygulanır. Dördüncü seçenekte ise Bölüm 2.1.7.2 te açıklanan prosedürün opsiyonlarını ayrıca kullanmak mümkündür.

For any *End Code*—The Mark VI controller allows you to program one of four possible actions for the end of the formula: *stopped*, *reversing at wash speed*, *turning at drain speed*, or *tumbling*. You use the same unloading procedure for formulas using the first three actions. For the fourth action, you also have the option of using the procedure described in Section 2.1.7.2.

Göster veya uygula [Display or Action]	Açıklama	Explanation
	Enerjiyi 3 fazdan kesin, operatör sinyalini susturun, ve tamburun süren herhangi bir hareketi varsa durdurun. Bu buton aynı zamanda kapı kilidinin açılmasını ve kapıyı açmanızı sağlar.	Remove power from the 3-wire circuit, silence the operator signal, and stop any basket motion in progress. This button also unlocks the door so you can open it.
	Aynı zamanda enerjiyi , operatör sinyalini, ve tamburun hareketini şu butonlardan herhangi biri ile de durdurabilirsiniz. Ancak,bu butonlardan herhangi birini kullandığınızda, hala kapıyı açmak için kapıyı açmadan önce ihtiyacınız olacaktır. Eğer *Son kodu 3* butonuna basarak formulayı durdurmak isterseniz (bak Bölüm 2.1.7.2), bu durmda Formula iptal olur ve tekrar gerei döndürülemez.	You can also remove power from the 3-wire circuit, silence the operator signal, and stop any basket motion that was in progress with any of these buttons. However, if you use any of these buttons, you'll still need to unlock the door with before you can open it. If you use any of these buttons to stop a formula with *end code 3* (see Section 2.1.7.2), the formula is terminated and cannot be resumed.
	Boşaltma için kapıyı açınız.	Open the door for unloading.

2.1.7.2. Son Kodu İçin 3 (*Çamaşırı yuvarlama*)—Son Kodu 3 (*Çamaşırı yuvarlama*) kapıyı açmanıza ve bir kısım çamaşırı almanıza izin verir, sonra kapıyı kapatıp yuvarlama işlemini tamamlayıp tamburdan daha fazla çamaşırı boşaltmanızı sağlar.

For End Code 3 (*Tumbling*)—End code 3 (*Tumbling*) allows you to open the door and remove some of the goods, then close the door and resume tumbling to loosen more goods from the basket.

Göster veya uygula [Display or Action]	Açıklama	Explanation
	Enerjiyi 3 fazdan kesin, operatör sinyalini susturun, ve tamburun süren herhangi bir hareketi varsa durdurun. Bu buton aynı zamanda kapı kilidinin açılmasını ve kapıyı açmanızı sağlar.	Remove power from the 3-wire circuit, silence the operator signal, and stop any basket motion in progress. This button also unlocks the door so you can open it.

Tambur dönmeyi durdurduğunda, kapıyı açın ve içindeki çamaşırın bir kısmını veya tamamını makineden boşaltın.

When the basket stops turning, open the door and remove some or all of the goods from the machine.

+	Boşaltma için kapıyı açınız.	Open the door for unloading.

Yükleme kısmından arzu edilen herhangi bir miktarı kaldırın.

Remove any desired portion of the load.

+	Kapıyı kapa.	Close the door.
①	Operator sinyali olmaksızın yuvarlama işleminin sona ermesi. Yuvarlama işlemi iki dakika daha, veya ‘e basıncaya kadar devam eder.	Resumes the tumbling action without the operator signal. Tumbling continues for another two minutes, or until you press .

— Sonu BICWCO03 —

— End of BICWCO03 —

Bölüm 3 Sinyaller ve hatalar

Chapter 3 Signals and Errors

BICWCT04 (Published) Book specs- Dates: 20070404 / 20070404 / 20070404 Lang: TUR01 Applic: CWS

3.1. Kullanıcı Müdahalesi

Formula başlatıldığında, makine genellikle otomatik olarak çalışır. Eğer kullanıcı makinede manuel olarak farklı bir şey yapmak ister, veya farklı bir karar verirse sinyal sesi duyulacaktır. Müdahalelerin ve sinyallerin en belirgin nedeni genellikle hatalar olmakla birlikte bazı durumlarda manuel olarak deterjan ilave etmek neden olabilir.

Operator Intervention

Once a formula starts, the machine usually runs automatically. The machine will sound the signal if an operator needs to make a decision or do something manually. The most common reasons you'll need to attend to the machine are errors, and to manually add chemicals in some cases.

3.1.1. Operatör sinyali ile Hata

Makinenin durmasına neden olacak bir arıza olursa, kullanıcı sinyali ötecek ve hata işareti olan ışık yanıp sönecektir. Bu arıza durumlarında üç faz akım devreden çıkar. Bunun sebebi motoru kontrol eden invertör arızası veya sürten vibrasyon sviçinden kaynaklanabilir. Rakam 16 bu vibrasyon hatalarının ekranda nasıl görüleceğini gösterir.

Error with Operator Signal

The operator signal will sound and the beacon will flash if an error causes the machine to stop. These errors usually disable the three-wire circuit, and include a tripped vibration switch or a malfunction of the inverter that controls the motor. Figure 16 shows how a vibration switch error appears on the display.

Rakam [Figure] **16: Operatör sinyali ile Tipik Hata [Typical Error with Operator Signal]**



Programı sürdürmek için, sinyali susturun ve hatanın sebebini yok edin. Sonra programı yeniden başlatın.

To resume the formula, silence the signal and correct the cause of the error. Then, restart the formula.

Göster veya uygula [Display or Action]	**Açıklama**	**Explanation**
	Klavyedeki iptal tuşu makineyi durdurur, operatör sinyal zilini susturur, ve sinyal ışığını kapatır. Çalışan formulanın baştan başlatılmasını gerektirir.	The Cancel key on the keypad stops the machine, silences the operator signal buzzer, and turns off the signal light. You'll have to restart the formula from the beginning.

Hatanın sebebini giderin. Sorunun nasıl giderileceğini bilmiyorsanız, kullanım kılavuzunu kontrol edebilecek birini mutlaka bulun.

Correct the cause of the error. If you don't know how to fix the problem, have someone check the reference manual for the machine.

①	Eğer hatayı giderirseniz, başla butonu Formulanın kesildiği yerden tekrar devam etmesini sağlayacaktır. Eğer vibrasyon, titreşim sviçi hatanın nedeni ise, makine dağıtım hattına gider ve böylelikle çamaşırın tambura oranlı dağılımını yapar, sonra kesilen sıkma aşamasını tekrar başlatır.	If you've corrected the error, the Start button resumes the formula where it stopped. If the vibration switch caused the error, the machine goes through a distribution sequence to spread the goods around the basket, then resumes the interrupted extract step.

3.1.2. Kimyasal için Operatör Sinyali

Operator Signal for a Chemical

Bu makine otomatik kimyasal pompa sistemini kontrol edebilir veya manuel olarak kimyasal ilave etmenizi sinyal ötmesi yöntemi ile uyarabilir. Bu (Rakam 17) gösterge her iki

This machine can control an automatic chemical pump system, or it can signal you to add chemicals manually. The display (Figure 17) appears the same in either case,

durumda da görülür, fakat sinyal ancak programlanmışsa öter ve kimyasal için uyarır.

but the operator signal sounds only if the signal is programmed.

Eğer Formula kimyasal pompa kontrolü sistemine göre programlanmışsa, ekran programlanan kimyasal valf numarasını, kimyasal ismini, ve enjeksiyon zamanını gösterecektir. Enjeksiyon zamanı ekranın, kimyasal göstergenin sağ altında görülecektir. Ve bu enjeksiyon başlar başlamaz geri sayıma geçecektir.

If the formula is programmed to control a chemical pump system, the display shows the programmed chemical valve number, chemical name, and injection time. The injection time, shown at the right end of the chemical display, begins counting down immediately when the chemical injection begins.

Manuel olarak kimyasal konmasına göre sinyal programlanmışsa, makine otomatik olarak kimyasal ihtiyacı olacak aşamaya kadar çalışacaktır. Sonra makine kimyasal konması için duracak, kimyasal konması ile beraber makine kaldığı yerden programa devam edecektir. Ekran konması gereken kimyasala göre değişecek, ancak enjeksiyon geri sayım süresi kullanıcı sinyalini susturduktan sonra devreye girecektir.

If the formula is programmed to signal you to manually add chemicals, the machine will operate automatically until it needs a chemical, then the machine stops and waits for you to add the chemical and resume operation. The display changes to show you which chemical to add, but the injection time counter runs only after you cancel the operator signal.

Rakam [Figure] **17: Çalıştır ekranında Kimyasal enjeksiyon Görünümü [Chemical Injection View on Run Display]**



Göster veya uygula [Display or Action]	**Açıklama**	**Explanation**
Kimyasalı ilave ettikten sonra,		After you've added the chemical,
	Operatör sinyalini iptal et ve enjeksiyon zaman sürecini başlat.	cancels the operator signal and starts the injection time counter.

— Sonu BICWCT04 —

— End of BICWCT04 —

Polski 6

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Instrukcja Użytkownika [Operator Guide]—

StaphGuard® Pralka-wirówka ze sterownikiem Mark VI [StaphGuard® Washer-extractor with Mark VI Controller]

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Stosowane Milnor® produkty wg modelu: [Applicable Milnor® products by model number:]

42044SP2 42044SP3 60044SP2 60044SP3 72044SP2

Spis Treści [English table of contents follows]

Table of Contents

Rozdział 1 Elementy sterowania

Chapter 1 Controls

BICWCO02 (Published) Book specs- Dates: 20070515 / 20070515 / 20110926 Lang: POL01 Applic: CWS

1.1. Elementy sterowania pralek-wirówek Mark VI

Informacje dotyczące lokalizacji i podstawowych funkcji każdego elementu sterowania umieszczone zostały w kolejnych częściach niniejszego dokumentu (Rozdział 1.1.2 do Rozdział 1.1.4). Nie należy traktować tego dokumentu jak instrukcji obsługi urządzenia.

Controls on Mark VI Non-Tilting Washer-extractors

Refer to other parts of this document (Section 1.1.2 through Section 1.1.4) for the location and basic function of individual controls. Don't use this document as instructions for operating the machine.

1.1.1. Lokalizacja elementów sterowania

Podstawowe elementy sterowania do standardowej obsługi urządzenia znajdują się na przednim panelu sterowania (Rysunek 1). Dodatkowe elementy sterowania i złącza umieszczone są w innym miejscu zgodnie z poniższym opisem.

Where are the Controls?

The essential controls for normal operation are located on the front control panel (Figure 1). Additional controls and connections are located elsewhere on the machine, as described here.

Rysunek [Figure] **1: Lokalizacja elementów sterowania [Locations of Controls]**

Widok z przodu; strona lewa [Front Left View]	**Widok z tyłu [Rear View]**	**Legenda [Legend]**
		**A.** Jednostka sterująca mikroprocesora (na rys. 68036F_B) [Microprocessor control box (68036F_B shown)] **B.** Panel sterowania [Control panel] **C.** Przycisk ręcznego płukania [Manual supply flush button] **D.** Wskaźnik ciśnienia hydraulicznego drzwi ładunkowych [Hydraulic pressure gauge for loading door] **E.** Wskaźnik ciśnienia powietrza układu przechylania (za tylnym dolnym panelem) [Air pressure gauge for tilt system (behind lower rear panel)]

1.1.2. Miejsce podłączenia urządzenia do przechowywania danych

Jednostka mikroprocesora w tylnym górnym rogu bocznego lewego panelu urządzenia (patrz Rysunek 1) jest wyposażona w złącze typu DIN do połączeń szeregowych. Należy użyć tego złącza (Rysunek 2)z urządzeniem do szeregowej transmisji danych, aby zapisać lub przywrócić program urządzenia i pamięć konfiguracyjną.

Where do I Connect the Data Storage Device?

The microprocessor box in the upper rear corner of the machine left side panel (see Figure 1) contains a DIN-type connection for serial communications. Use this connection, labelled as shown in Figure 2, with a serial data transfer device to save or restore machine programming and configuration memory.

Rysunek [Figure] **2: Złącze szeregowe do transmisji danych [Serial Connection for Data Transfer]**



1.1.3. Funkcje elementów sterowania

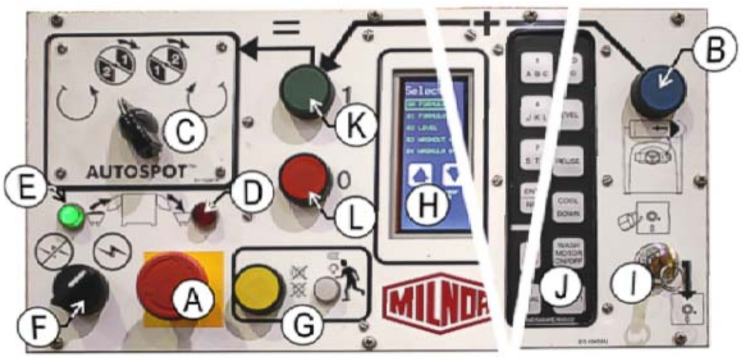
Podstawowe elementy sterowania służą do włączania i wyłączania urządzenia, wyboru formuł prania i monitorowania działania urządzenia.

What are the Operating Controls?

The primary operating controls are required to start and stop the machine, select wash formulas, and monitor machine operation.

Rysunek [Figure] **3: Elementy sterowania urządzenia Mark VI Staph Guard po stronie tkanin do prania [Mark VI Staph Guard Soil Side Controls]**

Panel sterowania [Control Panel]



Legenda [Legend]

A. Przycisk *Zatrzymanie awaryjne* [*Emergency stop* button]
B. Przycisk *Odblokowanie drzwi* [*Door unlock* button]
C. Przełącznik *Przełącznik wyboru przesuwu skokowego/Autospot* [*Jog/Autospot selector* switch]
D. Wskaźnik *Kontrola po stronie wypranych tkanin* [*Control on clean side* indicator]
E. Wskaźnik *Kontrola po stronie tkanin do prania* [*Control on soil side* indicator]
F. *Wyłącznik główny* zasilania [*Master switch* for power]
G. Przycisk *Sygnał dla operatora* i *Anulowanie sygnału* [*Operator signal* and *signal cancel* button]
H. Wyświetlacz ciekłokrystaliczny elementów graficznych [Liquid crystal graphic display]
I. *Przełącznik pracy/programowania* [*Run/Program keyswitch*]
J. Blok klawiszy [Keypad]
K. Przycisk *Start (Rozpoczęcie)* [*Start* button]
L. Przycisk *Zatrzymanie* [*Stop* button]

Rysunek [Figure] **4: Blok klawiszy [Keypad]**



Rysunek [Figure] **5: Typowe elementy sterowania urządzenia Staph Guard po stronie wypranych tkanin [Typical Staph Guard Clean Side Controls]**

Panel sterowania [Control Panel]	Legenda [Legend]
	**A.** Przycisk *Zatrzymanie awaryjne* [*Emergency stop* button] **B.** Przycisk *Odblokowanie drzwi* [*Door unlock* button] **C.** Przełącznik *Przełącznik wyboru przesuwu skokowego/Autospot* [*Jog/Autospot selector* switch] **D.** Wskaźnik *Kontrola po stronie wypranych tkanin* [*Control on clean side* indicator] **E.** Wskaźnik *Kontrola po stronie tkanin do prania* [*Control on soil side* indicator] **F.** Przycisk *Przeniesienie sterowania* [*Control transfer* button] **G.** Przycisk *Przesuwanie skokowe/punkt* [*Jog/spot* button]

Przycisk zatrzymania awaryjnego—wyłącza obwód 3-żyłowy. Przycisk zostaje zablokowany po naciśnięciu. Aby go zwolnić i umożliwić uruchomienie urządzenia, należy obrócić przycisk o ¼ obrotu w celu ustawienia go w standardowej pozycji.

Uwaga 1: W sytuacji awaryjnej należy natychmiast nacisnąć przycisk *zatrzymania awaryjnego*. Zostanie odłączony obwód 3-żyłowy, co

Emergency stop button—disables the 3-wire circuit. This switch locks in when pressed, so you must turn it a quarter turn to allow it to return to the normal position to allow the machine to run.

Notice 1: Press the *emergency stop* button immediately in any emergency situation. This disables the 3-wire circuit,

powoduje zatrzymanie wszystkich funkcji urządzenia i otwarcie odpływu.

- Po zresetowaniu tego przycisku można anulować lub wznowić przerwaną formułę. Formuła zostanie wznowiona od miejsca jej przerwania lub od początku poprzedniego kroku prania, w zależności od etapu procesu w chwili naciśnięcia przycisku *zatrzymania awaryjnego*.

which stops all machine operation and causes the drain to open.

- When you reset this button, you have the option of cancelling or resuming the interrupted formula. The formula resumes where it was interrupted or at the beginning of the previous bath step, depending on the operation in progress when the *emergency stop* button was pressed.

Wyłącznik główny (⊗ / ⊖)—odłącza zasilanie układu sterowania. Jeśli *wyłącznik główny* zostanie wyłączony (⊗) w trakcie wykonywania formuły, uzyskany zostanie natychmiastowy efekt jak w przypadku naciśnięcia przycisku *zatrzymania awaryjnego*: urządzenie jest zatrzymywane i otwierany jest odpływ. W przeciwieństwie do przycisku *zatrzymania awaryjnego*, wznowione formuły zostają rozpoczęte od początku kroku, w którym nastąpiła utrata zasilania. We wznowionym kroku zadane środki chemiczne nie zostaną ponownie wstrzyknięte.

Master power switch (⊗ / ⊖)—removes power from the control system. If you turn the *master switch* off (⊗) while a formula is running, the immediate result is similar to pressing the *emergency stop* button: the machine stops and the drain opens. Unlike the *emergency stop* button, resumed formulas start at the beginning of the step in which power was lost, but chemicals are not injected in the resumed step.

Przycisk anulowania sygnału dla operatora ()—anuluje działanie przycisku *sygnału dla operatora*. Należy nacisnąć ten przycisk, aby wyciszyć brzęczyk i wyłączyć lampkę *sygnału dla operatora* (patrz poniżej) lub w celu zaprogramowania generowania sygnału dźwiękowego przed wstrzyknięciem środka chemicznego.

Operator signal cancel button ()—cancels the *operator signal*. Press this button to silence the buzzer and turn off the *operator signal* light (see below), or to allow injection of a chemical programmed to require a signal before injection.

Lampka sygnału dla operatora—oznacza, że wystąpił błąd lub wymagane jest podjęcie czynności przez operatora np. naciśnięcie przycisku *uruchamiania* lub rozładowanie urządzenia. Elementem układu *sygnału dla operatora* jest brzęczyk za panelem sterowania oraz opcjonalnie lampka ostrzegawcza montowana poza obszarem panelu sterowania.

Operator signal light—indicates that the machine has encountered an error or that the operator must perform some action, such as pressing the *start* button or unloading the machine. The *operator signal* circuit includes a buzzer behind the control panel, and may include an optional beacon light mounted separately from the control panel.

Wyświetlacz ciekłokrystaliczny elementów graficznych—wyświetla informacje oraz pomoc dotyczącą urządzenia. Informacje na wyświetlaczu zmieniają się zgodnie ze stanem urządzenia i wybraną przez operatora funkcją.

Liquid crystal graphic display—displays information and help about the machine. The information on the display changes according to the status of the machine and the function selected by the operator.

Blok klawiszy—umożliwia operatorowi komunikację z układem sterowania. Blok klawiszy składa się z trzech obszarów: przyciski alfanumeryczne, przycisk ogólne i przyciski funkcji specjalnych. Każdy przycisk może mieć zaprogramowanych kilka funkcji w zależności od aktualnego stanu urządzenia. Niektóre przyciski są także używane w kombinacjach, dzięki czemu

Keypad—allows the operator to communicate with the machine control system. The keypad is divided into three areas: alphanumeric buttons, general buttons, and function-specific buttons. Each button may perform more than one function, based on the current machine

zyskiwane są dodatkowe funkcje.

Przycisk uruchamiania (①)—uruchamia wybraną formułę prania. Przycisk *uruchamiania* zasila obwód 3-żyłowy, który umożliwia działanie urządzenia.

Przycisk zatrzymywania (⓪)—zatrzymuje działanie urządzenia. Podobnie jak przycisk *zatrzymania awaryjnego*, przycisk *zatrzymywania* wyłącza obwód 3-żyłowy. Jednak przycisk *zatrzymywania* po naciśnięciu nie wymaga ręcznego resetowania.

Przełącznik pracy/programowania (/)—w położeniu *programowania* umożliwia m.in. zmianę konfiguracji urządzenia i formuł prania. W standardowym położeniu *pracy* formuły i konfiguracja są chronione i możliwe jest uruchomienie formuły.

status. Some buttons are also used in combinations for additional functions.

Start button (①)—starts the selected wash formula. The *start* button energizes the 3-wire circuit to allow the machine to operate.

Stop button (⓪)—stops machine operation. Like the *emergency stop* button, the *stop* button disables the 3-wire circuit; however, the *stop* button doesn't require you to manually reset it after use.

Run/Program keyswitch (/)—in the *Program* position, allows changes to machine configuration and wash formulas, among other actions. In the normal *Run* position, formulas and configuration are protected and formulas can be run.

1.1.4. Funkcja przełącznika

Inne przyciski i przełączniki są używane do sterowania dodatkowymi standardowymi i opcjonalnymi funkcjami urządzenia. Niniejsza część opisuje rozmieszczenie i funkcje tych elementów sterowania.

Przełącznik wyboru trybu Mildata/Local (Lokalny) (Rysunek 6)—umieszczony na jednostce sterującej mikroprocesora (patrz Rysunek 1); umożliwia komunikację urządzenia z siecią Mildata. Sieć Mildata łączy kilka urządzeń i umożliwia im współużytkowanie formuł prania i innych danych za pośrednictwem komputera Mildata. Po ustawieniu przełącznika w położeniu *Mildata* ( ) i wprowadzeniu numeru formuły urządzenie zgłosi żądanie treści formuły z komputera Mildata. Po ustawieniu położenia *Local (Lokalny)* ( ) dostępne są tylko formuły zapisane **w urządzeniu**.

What does this Switch do?

Other buttons and switches are used to control additional standard and optional machine functions. These miscellaneous controls are located and described in this section.

Mildata/Local selector switch (Figure 6)—located on the microprocessor control box (see Figure 1), allows the machine to communicate with a Mildata network. A Mildata network connects several machines together and allows them to share wash formulas and other data with the Mildata computer. When this switch is in the *Mildata* position ( ) and you enter a formula number, the machine requests the contents of the formula from the Mildata computer. When set to the *Local* position ( ), only formulas present **in the machine** are available.

Rysunek [Figure] **6: Przełącznik wyboru trybu Mildata/Local (Lokalny) [Mildata/Local Selector switch]**



Przycisk ręcznego płukania (Rysunek 7)—W urządzeniach z opcjonalną funkcją płukania wtryskowego; należy nacisnąć ten przycisk, aby rozpylić wodę na wtryskiwacze w celu wypłukania pozostałości środka chemicznego do cylindra. W przypadku ręcznego dodawania środków podczas formuły prania naciśnięcie przycisku powoduje wypłukanie pozostałości nierozcieńczonych środków chemicznych z podajnika. Jeżeli urządzenie nie jest wyposażone w opcję płukania wtryskowego, należy nacisnąć ten przycisk, aby przepłukać dysze ciekłych środków chemicznych świeżą wodą.

Manual supply flush button (Figure 7)—On machines equipped with an optional flushing supply injector, press this button to spray water into the supply injector to flush any remaining chemicals into the cylinder. If you manually add supplies during a wash formula, press this button to flush any remaining undiluted chemicals out of the supply chute. If the machine is not equipped with the optional supply injector, press this button to flush the liquid chemical inlets with fresh water.

Rysunek [Figure] **7: Przycisk ręcznego płukania [Manual Supply Flush button]**



Przełącznik wyboru Autospot (Rysunek 8)—Niektóre modele maszyn z dzielonymi siłownikami są wyposażone w funkcję *Autospot*, wspomagającą ładowanie i rozładunek. Ta opcjonalna funkcja optymalnie ustawia bęben w celu zapewnienia dostępu do wybranej kieszeni.

Autospot selector switch (Figure 8)—Some divided-cylinder machines are equipped with the *Autospot* feature to aid in loading and unloading. This optional feature optimally positions the basket for access to the selected pocket.

Rysunek [Figure] **8: Przełącznik wyboru Autospot [Autospot selector switch]**



— Koniec BICWCO02 — — End of BICWCO02 —

Rozdział 2 Normalna eksploatacja

Chapter 2 Normal Operation

BICWCO03 (Published) Book specs- Dates: 20070515 / 20070515 / 20110926 Lang: POL01 Applic: CWS

2.1. Instrukcja obsługi dla personelu zakładowego

Operating Instructions for Plant Personnel

2.1.1. Ważne informacje dotyczące bezpieczeństwa

Ten dokument został opracowany, aby dostarczyć operatorom pralki-wirówki informacji niezbędnych do obsługi urządzenia. Nie należy podejmować prób obsługi urządzenia przed uzyskaniem szczegółowych instrukcji od przeszkolonego, doświadczonego operatora.

Start Here for Safety

This document is meant to remind you, the person operating this washer extractor, of what is required to operate this machine. Do not attempt to operate this machine before an experienced, trained operator explains the details to you.



Niebezpieczeństwo 2: Inne zagrożenia—Nieostrożne działanie użytkownika może doprowadzić do śmierci lub kalectwa personelu, uszkodzenia urządzenia i innego sprzętu w pralni i/lub utratę gwarancji.

DANGER 2: Multiple Hazards—Careless operator actions can kill or injure personnel, damage or destroy the machine, damage property, and/or void the warranty.



Niebezpieczeństwo 3: Porażenie prądem i ryzyko poparzeń wywołanych prądem—Kontakt z wysokim napięciem grozi śmiercią lub poważnymi obrażeniami. Elementy wewnątrz obudowy urządzenia pozostają pod napięciem do momentu wyłączenia zasilania odłącznikiem głównym.

- Nie należy odblokowywać ani otwierać drzwi skrzynki elektrycznej.
- Znaleźć miejsce podłączenia głównej linii zasilania elektrycznego i skorzystać z niego w sytuacji zagrożenia, odłączając całe zasilanie od urządzenia.
- Serwisowania urządzenia nie powinny podejmować się osoby niewykwalifikowane i nieuprawnione. Należy zapoznać się z zagrożeniami oraz sposobami ich unikania.

DANGER 3: Electrocution and Electrical Burn Hazards—Contact with electric power can kill or seriously injure you. Electric power is present inside the cabinetry unless the main machine power disconnect is off.

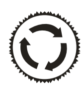
- Do not unlock or open electric box doors.
- Know the location of the main machine disconnect and use it in an emergency to remove all electric power from the machine.
- Do not service the machine unless qualified and authorized. You must clearly understand the hazards and how to avoid them.

OSTRZEŻENIE 4: Ryzyko kolizji, połamania i zablokowania—Dotykanie ruchomych elementów, które standardowo zakryte są panelami ochronnymi, pokrywami i płytami, może spowodować wciągnięcie i zmiażdżenie kończyn. Części te poruszają się automatycznie.

CAUTION 4: Collision, Crushing and Pinch Hazards—Contact with moving components normally isolated by guards, covers, and panels, can entangle and crush your limbs. These components move automatically.

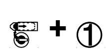
2.1.2. Sprawdzanie ustawienia przełączników

Check Switch Settings

Display or Action [Display or Action]	Wyjaśnienie	Explanation
	Sprawdzić, czy przełącznik *praca/programowanie* jest ustawiony w położeniu .	Check that the *run/program* keyswitch is at .
	Aby praca urządzenia była możliwa, należy odblokować wszystkie przyciski zatrzymania awaryjnego i uzyskać położenie *gotowości*.	All emergency stop buttons must be unlatched and in the *ready* position to allow machine operation.
	Sprawdzić, czy wyłącznik główny znajduje się w położeniu .	Check that the master switch is at .

2.1.3. Sposób ładowania urządzenia StaphGuard®

How do I Load a StaphGuard® Machine?

Display or Action [Display or Action]	Wyjaśnienie	Explanation
	Otworzyć drzwi.	Open the outer door.
	Wybrać kieszeń przeznaczoną do załadunku.	Select a pocket to load.
	Ustawić wybraną kieszeń na równi z drzwiami zewnętrznymi.	Align the selected pocket with the outer door.
	Aby załadować, należy otworzyć wewnętrzne drzwi pierwszej kieszeni.	Open the inner door of the first pocket to load.

Aby załadować urządzenie, należy wykonać procedurę określoną przez kierownictwo zakładu.

Use the procedure defined by facility management to put the goods in the machine.

	Zamknąć i zablokować drzwi wewnętrzne.	Close and latch the inner door.
	Aby załadować, należy otworzyć wewnętrzne drzwi pierwszej kieszeni.	Open the inner door of the first pocket to load.

Upewnić się, że waga ładunku wszystkich kieszeni jest zbliżona.

Verify that all pockets are loaded with similar goods to about the same weight.

2.1.4. Sposób wybrania formuły

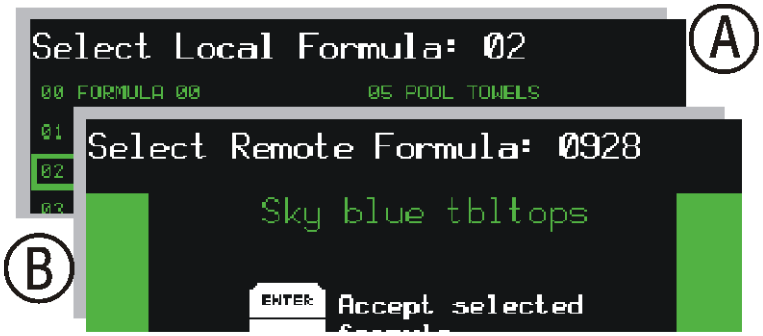
Sterownik Mark VI może działać w trybie *local (lokalny)* lub *Mildata*. W trybie *local (lokalny)* urządzenie nie komunikuje się żadnym innym urządzeniem i wykonuje formuły zapisanej w pamięci lokalnego sterownika. W trybie *Mildata* urządzenie pobiera i wykonuje formuły z komputera Mildata i często aktualizuje ekran na komputerze Mildata.

How do I Select a Formula?

The Mark VI controller can operate in either *local* or *Mildata* mode. In *local* mode, the machine does not communicate with any other devices and runs formulas contained in local controller memory. In *Mildata* mode the machine downloads and runs formulas from the Mildata computer, and frequently updates the display on the Mildata computer.

Rysunek [Figure] **9: Wybór formuły Local (Lokalny) lub Remote (Zdalny) [Selecting a Local or Remote Formula]**

Ekrany *wyboru programu* [*Select Program* Displays]



Legenda [Legend]

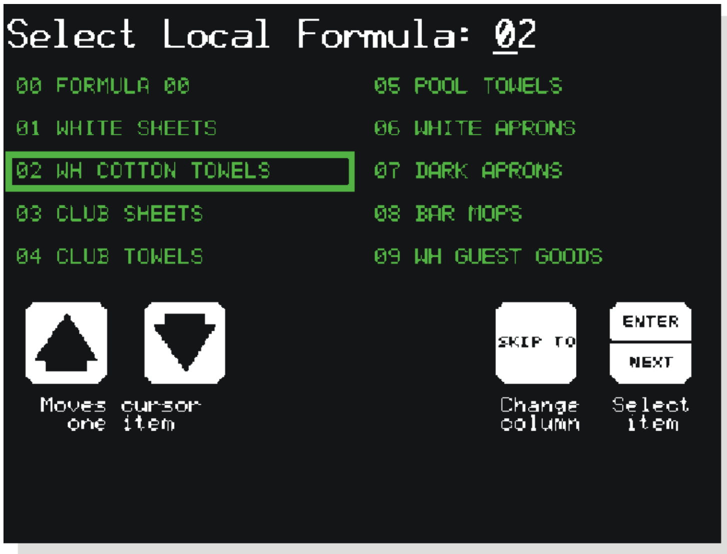
- **A.** Local (Lokalny) (brak lub wyłączona opcja Mildata) [Local (Mildata not present or enabled)]
- **B.** Remote (Zdalny) (włączona opcja Mildata) [Remote (Mildata enabled)]

2.1.4.1. Wybór formuły Local (Lokalny)

Wybór formuły Local (Lokalny)—Jeśli urządzenie nie jest częścią sieci Mildata lub sieć Mildata jest nieosiągalna, można wybrać dowolną formułę prania zapisaną w pamięci lokalnej urządzenia. Należy wybrać ekran *Select Local Formula (Wybierz formułę trybu lokalnego)* (Rysunek 10), aby wybrać prawidłową formułę dla rodzaju ładunku urządzenia.

Selecting a Local Formula—If the machine is not part of a Mildata network, or if the Mildata network is not available, you can choose from any of the wash formulas stored in local memory on the machine. Use the *Select Local Formula* screen (Figure 10) to choose the correct formula for the goods in the machine.

Rysunek [Figure] **10: Ekran *Select Local Formula (Wybierz formułę trybu lokalnego)* [*Select Local Formula* Screen]**



Display or Action [Display or Action]	**Wyjaśnienie**	**Explanation**
0 7	Bezpośredni wybór formuły do wykonania (np. 07). Po wprowadzeniu dwucyfrowego numeru wybrana formuła jest przesuwana na początek lewej kolumny wyświetlanej na ekranie.	Directly selects the formula you want to run (07, for example). When you enter a two-digit number, the selected formula moves to the top of the left column on this screen.
SKIP TO	Przełączenie pozycji kolumny w celu wybrania formuły, jeśli jest to konieczne. Jeżeli żądana formuła jest wyświetlana na ekranie, ale w innej kolumnie niż pole wyboru, naciśnięcie klawisza powoduje przejście pola do innej kolumny formuł.	Toggles the column for formula selection if necessary. If the desired formula is visible on the screen, but is in the opposite column from the selection box, this keystroke moves the selection box to the other column of formulas.
⬇ / ⬆	Przesunięcie do następnej lub poprzedniej wyświetlanej formuły w bieżącej kolumnie. Jeżeli żądana formuła jest wyświetlana na ekranie w tej samej kolumnie co pole wyboru, naciśnięcie klawiszy spowoduje przesunięcie pola w górę lub w dół do żądanej formuły.	Move to the next or previous displayed formula in the current column. If the desired formula is visible on the screen and in the same column as the selection box, you can use these two keys to move the selection box down or up to select the formula.

Display or Action [Display or Action]	Wyjaśnienie	Explanation
ENTER	Potwierdzenie wybranej formuły. Ustawić pole wyboru na formule, która zostanie wykonana, a następnie nacisnąć ENTER, aby kontynuować standardowe procedury obsługi.	Confirm the selected formula. Place the selection box on the formula you want to run, then press ENTER to continue with the normal operation procedures.

Suplement 1

Informacje dotyczące obciążenia i *zużycia wody*

Funkcja *licznika zużycia wody* jest dostępna w pralkach-wirówkach Mark VI wyposażonych w opcjonalne przepływomierze na podłączonych wężach wody. Ta funkcja umożliwia sterownikowi Mark VI ustalenie ilości wody proporcjonalnie do wagi ładunku wprowadzonej po wybraniu formuły. Jeśli po zgłoszeniu została wprowadzona waga 200 jednostek, urządzenie zużyje dwa razy tyle wody w porównaniu z wprowadzeniem wartości 100 jednostek. Ta opcja może zaoszczędzić znaczą ilość wody po wprowadzeniu dokładnej wagi każdego ładunku.

Supplement 1

About Load Weight and *Metered Water*

Metered water is available on Mark VI washer-extractors equipped with optional flow meters on the incoming water lines. This feature allows the Mark VI controller to admit a quantity of water proportional to the weight of goods you enter after selecting the formula. If you enter a weight of 200 units when prompted, the machine will use twice as much water as if you entered 100 weight units. This option can save a significant amount of water if you enter accurate weights for each load.

Rysunek [Figure] **11: Wprowadzanie wagi ładunku dla opcji licznika zużycia wody [Entering Load Weight for Metered Water]**



Display or Action [Display or Action]	**Wyjaśnienie**	**Explanation**
4 4 9	Wprowadzić wagę ładunku w urządzeniu. Sterownik korzysta z wartości wagi w celu określenia ilości wody wymaganej do prania zgodnie z zaprogramowaną formułą.	Enter the weight of the goods loaded in the machine. The machine controller uses the weight to determine how much water is needed to wash the goods according to the programmed wash formula.
ENTER	Zaakceptować wprowadzoną wagę ładunku i kontynuować.	Accept the entered goods weight and continue.

2.1.4.2. **Wybór formuły Mildata**—Jeśli urządzenie jest częścią sieci Mildata i sieć jest dostępna, można wybrać dowolną formułę prania zapisaną w komputerze Mildata. Należy użyć ekranu *Select Remote Formula (Wybierz formułę trybu zdalnego)* (Rysunek 12), aby wybrać najlepszą formułę dla ładunku w urządzeniu.

Notka 1: W komputerze Mildata można zapisać maksymalnie 1000 różnych formuł. Wszystkie formuły są dostępne dla każdej pralki-wirówki, która jest są częścią sieci Mildata i jest wyposażona w kompatybilny sprzęt.

Selecting a Mildata Formula—If the machine is part of a Mildata network and the network is available, you can choose any wash formula stored on the Mildata computer. Use the *Select Remote Formula* screen (Figure 12) to choose the best formula for the goods in the machine.

Note 1: You can store up to 1000 different wash formulas on the Mildata computer. All of these formulas are available to all washer-extractors that are part of the Mildata network and have compatible hardware.

Rysunek [Figure] **12: Ekran *Select Remote Formula (Wybierz formułę trybu zdalnego)* [*Select Remote Formula* Screen]**



Display or Action [Display or Action]	**Wyjaśnienie**	**Explanation**
0 9 2 8	Wybierz formułę, np. 928, zapisaną w komputerze Mildata. The Mark VI controller requests the formula from the Mildata computer and displays the formula name, as shown in Rysunek 12.	Select formula 928 (example) stored on the Mildata computer. The Mark VI controller requests the formula from the Mildata computer and displays the formula name, as shown in Figure 12.
ENTER	Sprawdzić, czy wyświetlana nazwa formuły jest prawidłowa. Jeśli wyświetlana jest błędna formuła dla ładunku, nacisnąć CANCEL, aby usunąć numer formuły, a następnie wpisać inny numer.	Confirm that the displayed formula name is the formula you want to run. If the displayed formula isn't the right one for the loaded goods, press CANCEL to clear the formula number, then enter another number.

Po wyszukaniu i sprawdzeniu formuły kontroler Mark VI wysyła zapytanie o skonfigurowane *dane wsadu*.

After you've retrieved and verified the formula, the Mark VI controller prompts for any configured *batch data*.

2.1.4.3. **Wprowadzanie *kodów wsadu Mildata***—Kontroler Mark VI korzysta z ekranów (podobny: Rysunek 13) w celu informowania o polach danych wsadu wybranych w konfiguracji urządzenia (patrz the related section in document BICWCC01). Wprowadzone dane są wysyłane do komputera Mildata w celu zaksięgowania i utworzenia raportu.

Entering *Mildata Batch Codes*—The Mark VI controller uses a screen similar Figure 13 to prompt you for the batch data fields selected in machine configuration (see the related section in document BICWCC01). The data you enter is sent to the Mildata computer for accounting and report generation.

Rysunek [Figure] **13: Dane wsadowe dla wykonania formuły w trybie zdalnym [Batch Data for Remote Formula Operation]**



Opcja Weight (Waga)—waga wsadu w urządzeniu. Ta informacja jest zazwyczaj używana wraz z innymi danymi wsadu w celu obliczenia należności klienta lub produktywności pracownika. W przypadku urządzeń wyposażonych w opcjonalne przepływomierze, w których zostały skonfigurowane liczniki przepływu wody, wartość wagi jest także używana do określania ilości wymaganej wody do przetworzenia wsadu. Wartość wagi może składać się z maksymalnie trzech cyfr.

Weight—the weight of the batch of goods in the machine. This information is usually used along with other batch data to calculate customer charges or employee productivity. In machines equiped with optional flow meters and configured for metered water, the weight value is also used to determine how much water is required to process the batch. The weight value can be up to three digits.

Kod klienta—kod identyfikacyjny klienta. Ta informacja ułatwia określenie ilości cykli pracy urządzenia wykonanej dla każdego klienta. Dla kodu klienta dostępnych jest dziesięć cyfr.

Customer Code—the identifying code for the customer. This information can help you determine how much work each customer is submitting. Ten digits are available for customer code.

Numer pracownika—kod identyfikacyjny pracownika odpowiedzialnego za ten wsad. Numer pracownika może składać się z maksymalnie pięciu cyfr.

Employee Number—the identifying code for the employee responsible for this batch. The employee number may be up to five digits long.

Opcja Pieces (Sztuki)—liczba sztuk w urządzeniu. Ta wartość może czasami zastępować wartość wagi, zwłaszcza gdy opłaty naliczane są według liczby sztuk, a nie na podstawie wagi. Można wprowadzić 4-cyfrową liczbę elementów.

Pieces—the number of pieces in the machine. This value sometimes replaces the weight value, especially when charges are made by the piece rather than by weight. Four digits are available for the number of pieces.

Numer partii—kod identyfikacyjny kilku związanych ze sobą wsadów lub klientów. W zależności od uznania użytkownika wartość wpisana w tej pozycji może reprezentować konkretną liczbę cykli wspólną dla kilku klientów. Numer partii może składać się z maksymalnie 10 cyfr.

Lot Number—the identifying code for several related batches or customers. At your discretion, the value entered here might represent a particular route number common to several accounts. A lot number can be up to 10 digits long.

2.1.5. Uruchomienie wybranej formuły

Przed kontynuacją procedury roboczej należy upewnić się, że zostały zakończone te etapy.

1. Urządzenie jest załadowane lub bliskie znamionowej pojemności wagi.
2. Została wybrana formuła odpowiednia dla wsadu w urządzeniu.
3. Zostały wprowadzone wszystkie dane wsadu wymagane przez kontroler urządzenia do pomiaru zużycia wody lub utworzenia raportu Mildata.
4. Zostały zamknięte drzwi.

Start the Selected Formula

Be sure you've completed these steps before you go any further in the operating procedure.

1. You've loaded the machine at or near its rated weight capacity.
2. You've selected a formula that's appropriate for the goods in the machine.
3. You've entered any batch data the machine controller requires for metered water or Mildata reporting.
4. You've closed the door.

Display or Action [Display or Action]	**Wyjaśnienie**	**Explanation**
①	Uruchom wybraną formułę.	Start the selected formula.

Urządzenie rozpocznie formułę prania. Rozpoczyna się obracanie bębna i otwierane są zawory wodne. Po osiągnięciu poziomu bezpieczeństwa może zostać otwarty zawór pary w celu rozpoczęcia ogrzewania wody. Od tego kroku do końca procedura jest wykonywana w pełni automatycznie, oprócz programowania sygnału wstrzykiwania środka chemicznego (patrz Suplement 2).

The machine begins the wash formula. The basket begins turning and water valves open. When a safe level is achieved, the steam valve may open to begin heating the bath. Operation from this point to the end of the formula is completely automatic unless a signal is programmed with a chemical injection (see Supplement 2).

Suplement 2

Wstrzykiwanie środka chemicznego z sygnałem dla operatora

Aby regulować ilość wstrzykiwanego środka chemicznego dla ładunków w zależności od wysoce zmiennych współczynników, można zaprogramować formułę tak, aby zatrzymać licznik czasu i zasygnalizować zapotrzebowanie na środek chemiczny. Dodać środek chemiczny, a następnie nacisnąć , aby wznowić formułę.

Supplement 2

Chemical Injections with the Operator Signal

If you need to adjust the amount of a chemical injection from load to load depending on highly variable factors, the formula can be programmed to stop the timer and signal you when a chemical is required. Add the chemical, then press to resume the formula.

2.1.6. Informacje na ekranie *pracy*

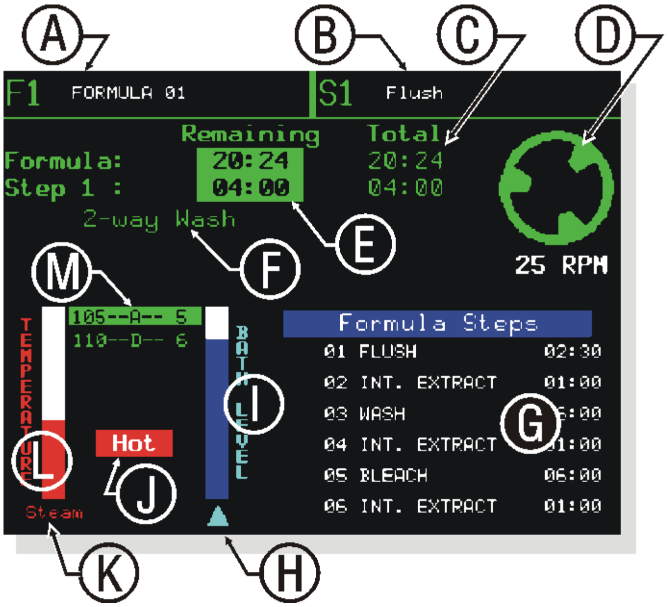
Podczas wykonywania wybranej formuły wyświetlany jest ekran (podobny: Rysunek 14). Wyświetlane informacje zostały wyjaśnione poniżej.

What Does the *Run* Display Tell Me?

While the machine is running the formula you selected, the display appears similar to the one shown in Figure 14. The information shown here is explained below.

Rysunek [Figure] **14: Odczyt informacji z ekranu *pracy* [How to Read the *Run* Display]**

Typowy ekran [Typical Display]



Legenda [Legend]

A. Numer formuły i nazwa [Formula number and name]

B. Numer kroku i nazwa [Step number and name]

C. Całkowity czas formuły i aktualny krok [Total time for formula and current step]

D. Element graficzny obracania bębna i jego prędkość [Basket rotation graphic and speed]

E. Pozostały czas całej formuły i aktualny krok [Remaining time for entire formula and current step]

F. Komunikat dotyczący statusu urządzenia [Machine status message]

G. Kroki formuły: numer, nazwa i czas trwania [Formula steps: number, name, and duration]

H. Wskaźnik napełnienia lub opróżnienia [Indicator for filling or draining]

I. wskaźnika poziomu prania [Graphic bath level indicator]

J. Wskaźniki zaworów wodnych [Water valves indicators]

K. Wskaźnik opcjonalnych zaworów parowych i schładzania [Indicator for optional steam and cooldown valves]

L. Graficzny wskaźnik temperatury prania [Graphic bath temperature indicator]

M. Temperatura prania i dane dotyczące poziomu [Bath temperature and level data]

2.1.6.1. Informacje o formule i kroku—W pierwszym wierszu zawsze wyświetlany jest numer i nazwa aktualnej formuły i kroku. *Numer formuły* jest wyświetlany w lewym górnym rogu ekranu po literze “F.”Po numerze wyświetlana jest *nazwa formuły*.

Formula and Step Information—The top line of the display always shows the number and name of the current formula and step. The *formula number* appears in the upper left corner of the display, following the letter “F.”The *formula name* follows the number.

Po prawej stronie informacji o formule wyświetlane są *numer i nazwa aktualnego kroku*. Kontroler Mark VI aktualizuje numer formuły i nazwę po rozpoczęciu formuły oraz na początku każdego

The *step number and name of the current step* are displayed to the right of the formula information. The Mark VI controller updates

kolejnego kroku.

the formula number and name when a formula starts and at the beginning of each subsequent step.

Poniżej nazw formuły i kroku umieszczona jest *informacja o czasie*. Liczby w kolumnie “Total (Całkowity)” (zielone) przedstawiają całkowity czas wymagany do zakończenia formuły i kroku; nie uwzględnia współczynników, których opis zawiera Notka 2. Po rozpoczęciu formuły sterownik oblicza wartość “Formula (Formuła)”. Podczas wykonywania formuły ta wartość pozostaje niezmienna. Sterownik oblicza i wyświetla wartość “Step x (Krok x)” na początku każdego kroku.

Below the formula and step names is *time information*. The numbers in the “Total” column (green numbers) show the total time required for the formula and step to run to completion, not including the factors described in Note 2. The controller calculates the “Formula” value when the formula begins, and this value doesn't change while the formula is running. The controller calculates and displays the “Step x” value at the start of each step.

Liczby w kolumnie “Remaining (Pozostały)” obszaru czasu (czarne cyfry na zielonym tle) wskazują *pozostały czas* formuły oraz aktualny krok. Te wartości określają **minimalny** pozostały czas (patrz Notka 2).

The numbers in the “Remaining” column of the time area (black numbers on a green background) indicate the *time remaining* in the formula and in the current step. These numbers indicate the **minimum** amount of time remaining (see Note 2).

Notka 2: Nie jest możliwe oszacowanie czasu trwania niektórych zadań formuły prania. Kontroler zatrzymuje licznik do czasu spełnienia warunku. Na przykład, wymagany czas napełnienia urządzenia do żądanego poziomu zależy od ciśnienia wody w instalacji, wymiaru połączenia rurowego urządzenia i liczby wypełnianych jednocześnie urządzeń. Oprócz wymaganego czasu napełnienia zmienny jest także czas wymagany do osiągnięcia temperatury oraz czas sprawdzenia przez operatora wstrzyknięcia substancji chemicznych. Licznik może być również zatrzymany w wyniku wystąpienia błędu.

Note 2: The duration of some wash formula events can't be estimated, so the controller stops the timer until a requirement is met. For example, the time required for the machine to fill to the desired level depends on the water pressure to the plant, the size of the piping to the machine, and how many other machines are filling at the same time. In addition to the time required to fill, the time required to achieve temperature or for an operator to verify a chemical injection are variable. Error conditions can also stop the timer.

Sterownik wyświetla aktualny *stan urządzenia* poniżej numeru kroku i pozostałego czasu. Niektóre możliwe stany urządzenia zawiera Tablica 1. Komunikaty o błędach są wyświetlane natychmiast poniżej komunikatu o stanie urządzenia.

The controller displays the current *machine status* below the step number and remaining time. Some of the possible machine states are listed in Table 1. Error messages appear immediately below the machine status message when required.

Tablica 1: Komunikaty o stanie urządzenia [English table follows]

Idle (Stan bezczynności)	Coasting (Rozruch)
1-way Wash (Pranie jednokierunkowe)	Waiting to Discharge (Oczekiwanie na wyładowanie)
2-way Wash (Pranie dwukierunkowe)	Waiting for Load (Oczekiwanie na załadunek)
Soak (Namaczanie)	Power-up Delay (Opóźnienie załączenia zasilania)
Pre+Final Extract (Wirowanie wstępne/końcowe)	Draining to Sewer (Opróżnianie do kanalizacji)
Intermediate Extract (Wirowanie pośrednie)	Draining to Reuse (Opróżnianie do ponownego użycia)
Final Extract (Wirowanie końcowe)	Timer Stopped (Zatrzymany licznik czasu)
Double Extract (Dwukrotne wirowanie)	Please Wait xx Seconds (Proszę czekać xx sekund)

Table 1: Machine Status Messages

Idle	Coasting
1-way Wash	Waiting to Discharge
2-way Wash	Waiting for Load
Soak	Power-up Delay
Pre+Final Extract	Draining to Sewer
Intermediate Extract	Draining to Reuse
Final Extract	Timer Stopped
Double Extract	Please Wait xx Seconds

2.1.6.2. Obracanie bębna—*Element graficzny obrotów bębna* w pobliżu prawego górnego rogu na ekranie oznacza względną prędkość obrotów bębna podczas prania, opróżniania i wirowania. Poniżej elementu graficznego bębna wyświetlana jest żądana prędkość bębna w jednostce liczby obrotów/minutę (RPM) lub w jednostkach grawitacyjnych (G).

Basket Rotation—The *basket rotation graphic* near the upper right corner of the display represents the relative basket speeds in wash, drain, and extract speeds. Immediately below the basket rotation graphic, the controller displays the desired basket speed in either revolutions per minute (RPMs) or in gravitational units (G's).

2.1.6.3. Temperatura prania i poziom—*Wskaźniki zaworu wody* są wyświetlane po otwarciu odpowiedniego zaworu wody.

Element graficzny *wskaźnika temperatury prania* wskazuje przybliżoną temperaturę w urządzeniu. Pionowy pasek wskaźnika jest wypełniony kolorem czerwonym, gdy temperatura w urządzeniu jest na maksymalnym dopuszczalnym poziomie 95 stopni Celsjusza (205 stopni Fahrenheita).

Poniżej elementu graficznego wskaźnika temperatury wyświetlany jest wskaźnik pary lub schładzania, jeśli jedna z tych opcjonalnych funkcji jest włączona. Po otwarciu zaworu pary wyświetlany jest napis “Steam (Para)”, a po włączeniu opcji schładzania napis “Cooldown (Schładzanie)”.

Bath Temperature and Level—*Water valve indicators* appear when the corresponding water valve is open.

The graphic *bath temperature indicator* shows the approximate temperature in the machine. The vertical indicator bar is solid red when the temperature in the machine is at the maximum allowable value of 205 degrees Fahrenheit (95 degrees Celsius).

The steam or cooldown indicator appears below the graphic temperature indicator when either of these optional features is enabled. “Steam” appears when the steam valve is open, and “Cooldown” appears when

the cooldown output is enabled.

Element graficzny *wskaźnika poziomu prania* reprezentuje wartość procentową osiągniętego żądanego poziomu. Pionowy pasek wskaźnika wypełniony jest kolorem niebieskim po osiągnięciu zaprogramowanego poziomu, a kolorem białym, gdy urządzenie zostanie opróżnione z wody.

The graphic *bath level indicator* shows the percentage of the desired level that's achieved. The vertical indicator bar is solid blue when the programmed level is achieved, and solid white when there is no water in the machine.

Strzałka wskaźnika kierunku poziomu jest skierowana w górę, gdy wzrasta aktualny poziom prania w urządzeniu (wypełnianie urządzenia) oraz skierowana w dół w trakcie opróżniania. Strzałka nie jest widoczna po osiągnięciu poziomu i w czasie wirowania.

The *level direction indicator arrow* points upward when the actual bath level in the machine is increasing (when the machine is filling), and points downward when the drain opens. The arrow is not visible when level is achieved, or during extract steps.

Między elementami graficznymi wskaźników temperatury i poziomu kontroler wyświetla *temperaturę prania i dane dotyczące poziomu*. Pierwszy wiersz zawiera aktualnie uzyskaną wartość temperatury i poziom w urządzeniu, a dolny żądane wartości.

The controller displays *bath temperature and level data* between the temperature and level graphic indicators. The top line displays the temperature and level that are currently achieved in the machine, and the bottom line displays the desired values.

2.1.6.4. **Kroki formuły i wstrzyknięcie środka chemicznego**—Po rozpoczęciu formuły w lewym dolnym obszarze ekranu kontroler wyświetla pierwsze sześć kroków na *liście kroków formuły*. Jeśli program składa się z większej liczby kroków, których jednoczesne wyświetlenie nie jest możliwe, po zakończeniu już wyświetlanych kroków należy przewinąć listę w celu wyświetlenia pozostałych. Zaznaczony jest aktualny krok.

Formula Steps and Chemical Injection—When a formula begins, the controller displays the first six steps in the *formula steps list* in the lower left area of the screen. If the program contains more steps than can be displayed at one time, the list scrolls to display more steps as the earlier ones end. The current step is highlighted.

Podczas każdego wstrzyknięcia listę zaprogramowanych *wstrzyknięć środka chemicznego* zastępuje lista kroków formuły. Zaznaczony jest aktualnie wstrzykiwany środek chemiczny.

The list of programmed *chemical injections* replaces the formula steps list during each injection, with a highlight box on the chemical that's currently injecting.

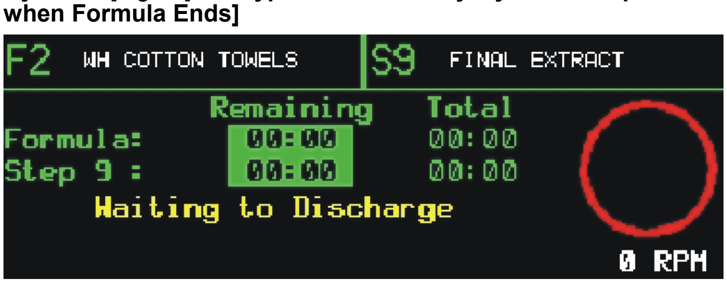
2.1.7. Rozładowanie urządzenia

Po zakończeniu formuły generowany jest sygnał dla operatora i wyświetlany komunikat dotyczący oczekiwania na rozładowanie (patrz Rysunek 15). Aby rozładować urządzenie należy wykonać procedurę zbliżoną do opisanej poniżej.

Unload the Machine

When the formula ends, the operator signal sounds and the machine displays a message that it is waiting to discharge (see Figure 15). Use a procedure similar to the one outlined below to unload the goods.

Rysunek [Figure] **15: Typowe komunikaty wyświetlane po zakończeniu formuły [Typical Message when Formula Ends]**



2.1.7.1. Dla każdego *kodu zakończenia*—Sterownik Mark VI umożliwia zaprogramowanie jednej z czterech możliwych czynności po zakończeniu formuły: *zatrzymanie*, *zmiana kierunku obrotów*, *zmiana prędkości opróżniania* lub *obracanie bębna*. W przypadku pierwszych trzech czynności wykonywana jest identyczna procedura rozładunku. Dla czwartej czynność możliwe jest także wykonanie procedury, której opis zawiera Rozdział 2.1.7.2.

For any *End Code*—The Mark VI controller allows you to program one of four possible actions for the end of the formula: *stopped*, *reversing at wash speed*, *turning at drain speed*, or *tumbling*. You use the same unloading procedure for formulas using the first three actions. For the fourth action, you also have the option of using the procedure described in Section 2.1.7.2.

Display or Action [Display or Action]	Wyjaśnienie	Explanation
	Odłączyć zasilanie obwodu 3-żyłowego, wyciszyć sygnał dla operatora i zatrzymać ruch bębna. Ten przycisk także zwalnia blokadę drzwi, aby możliwe było ich otwarcie.	Remove power from the 3-wire circuit, silence the operator signal, and stop any basket motion in progress. This button also unlocks the door so you can open it.
/ /	Można także odłączyć zasilanie obwodu 3-żyłowego, wyciszyć sygnał dla operatora i zatrzymać wszystkie ruchy bębna za pomocą dowolnego z tych przycisków. Po naciśnięciu dowolnego z tych przycisków nadal wymagane jest odblokowanie drzwi za pomocą przycisku , aby możliwe było ich otwarcie. Naciśnięcie dowolnego z tych przycisków w celu zatrzymania formuły za pomocą *kodu zakończenia 3* (patrz Rozdział 2.1.7.2) powoduje zakończenie formuły. Nie jest możliwe jej wznowienie.	You can also remove power from the 3-wire circuit, silence the operator signal, and stop any basket motion that was in progress with any of these buttons. However, if you use any of these buttons, you'll still need to unlock the door with before you can open it. If you use any of these buttons to stop a formula with *end code 3* (see Section 2.1.7.2), the formula is terminated and cannot be resumed.
+	Otworzyć drzwi w celu rozładowania.	Open the door for unloading.

2.1.7.2. Dla kodu zakończenia nr 3 (*Obracanie bębna*)—Kod zakończenia nr 3 (*Obracanie bębna*) umożliwia otwarcie drzwi i wyjęcie kilku sztuk ze wsadu w celu uzyskania luzu w bębnie, następnie zamknięcie drzwi i wznowienie obrotów bębna.

For End Code 3 (*Tumbling*)—End code 3 (*Tumbling*) allows you to open the door and remove some of the goods, then close the door and resume tumbling to loosen more goods from the basket.

Display or Action [Display or Action]	Wyjaśnienie	Explanation
	Odłączyć zasilanie obwodu 3-żyłowego, wyciszyć sygnał dla operatora i zatrzymać ruch bębna. Ten przycisk także zwalnia blokadę drzwi, aby możliwe było ich otwarcie.	Remove power from the 3-wire circuit, silence the operator signal, and stop any basket motion in progress. This button also unlocks the door so you can open it.

Po zatrzymaniu obracania bębna należy otworzyć drzwi i wyjąć z urządzenia kilka sztuk lub cały wsad.

When the basket stops turning, open the door and remove some or all of the goods from the machine.

Display or Action	Wyjaśnienie	Explanation
+	Otworzyć drzwi w celu rozładowania.	Open the door for unloading.

Wyjąć żądaną część ładunku.

Remove any desired portion of the load.

Display or Action	Wyjaśnienie	Explanation
+	Zamknąć drzwi.	Close the door.
①	Wznowić obracanie bębna bez generowania sygnału dla operatora. Obracanie bębna jest kontynuowane przez kolejne dwie minuty lub do naciśnięcia przycisku .	Resumes the tumbling action without the operator signal. Tumbling continues for another two minutes, or until you press .

— Koniec BICWCO03 —

— End of BICWCO03 —

Rozdział 3 Sygnały i błędy

Chapter 3 Signals and Errors

BICWCT04 (Published) Book specs- Dates: 20070515 / 20070515 / 20110926 Lang: POL01 Applic: CWS

3.1. Działanie podejmowane przez operatora

Po uruchomieniu formuły urządzenie zazwyczaj uruchamia się automatycznie. Jeżeli wymagane jest podjęcie działań przez operatora lub ręczne wykonanie zadania, zostanie wygenerowany sygnał. Najczęstszymi przyczynami jest występowanie błędów i ręczne dodawanie środka chemicznego.

Operator Intervention

Once a formula starts, the machine usually runs automatically. The machine will sound the signal if an operator needs to make a decision or do something manually. The most common reasons you'll need to attend to the machine are errors, and to manually add chemicals in some cases.

3.1.1. Błąd wskazywany generowaniem sygnału dla operatora

Jeśli błąd spowoduje zatrzymanie urządzenia, zostanie wygenerowany sygnał dla operatora i zaświeci się lampka ostrzegawcza. Te błędy powodują zazwyczaj wyłączenie 3-żyłowego obwodu. Dotyczą także zablokowania przełącznika wibracji lub nieprawidłowego działania przemiennika, który steruje silnikiem. Rysunek 16 przedstawia błąd przełącznika wibracji wyświetlany na ekranie.

Error with Operator Signal

The operator signal will sound and the beacon will flash if an error causes the machine to stop. These errors usually disable the three-wire circuit, and include a tripped vibration switch or a malfunction of the inverter that controls the motor. Figure 16 shows how a vibration switch error appears on the display.

Rysunek [Figure] **16: Typowe błędy wskazywane generowaniem sygnału dla operatora [Typical Error with Operator Signal]**



W celu wznowienia formuły, wyciszenia sygnału i zlikwidowania przyczyny błędu. Następnie należy ponownie uruchomić formułę.

To resume the formula, silence the signal and correct the cause of the error. Then, restart the formula.

Display or Action [Display or Action]	Wyjaśnienie	Explanation
	Przycisk anulowania w bloku klawiszy zatrzymuje urządzenie, wycisza brzęczyk i wyłącza lampkę ostrzegawczą. Należy ponownie uruchomić formułę od początku.	The Cancel key on the keypad stops the machine, silences the operator signal buzzer, and turns off the signal light. You'll have to restart the formula from the beginning.

Zlikwidować przyczynę błędu. Jeśli nie jest znana procedura zlikwidowania problemu, należy poprosić osobę z otoczenia o sprawdzenie informacji w podręczniku referencyjnym urządzenia.

Correct the cause of the error. If you don't know how to fix the problem, have someone check the reference manual for the machine.

①	Jeżeli przyczyna błędu została zlikwidowana, naciśnięcie przycisku uruchamiania powoduje wznowienie formuły od miejsca jej zatrzymania. Jeśli przyczyną błędu jest przełącznik wibracji, urządzenie przechodzi przez etap rozmieszczenia wsadu w bębnie, a następnie wznawiany jest przerwany krok wirowania.	If you've corrected the error, the Start button resumes the formula where it stopped. If the vibration switch caused the error, the machine goes through a distribution sequence to spread the goods around the basket, then resumes the interrupted extract step.

3.1.2. Generowanie sygnału dla operatora z powodu środka chemicznego

Operator Signal for a Chemical

To urządzenie może sterować automatycznym układem pompy środka chemicznego lub sygnalizować o konieczności ręcznego dodania

This machine can control an automatic chemical pump system, or it can signal you to add chemicals manually. The display

środka. W każdym przypadku wyświetlany jest ten sam ekran (Rysunek 17), jednak sygnał dla operatora jest generowany, jeśli został on zaprogramowany.

(Figure 17) appears the same in either case, but the operator signal sounds only if the signal is programmed.

Jeżeli w formule została zaprogramowana opcja sterowania układem pompy środka chemicznego, na ekranie zostanie wyświetlony zaprogramowany numer środka chemicznego, jego nazwa i czas wstrzyknięcia. Natychmiast po rozpoczęciu wstrzyknięcia w dolnej części ekranu po prawej stronie zaczyna się odliczanie czasu wstrzyknięcia.

If the formula is programmed to control a chemical pump system, the display shows the programmed chemical valve number, chemical name, and injection time. The injection time, shown at the right end of the chemical display, begins counting down immediately when the chemical injection begins.

Jeśli została zaprogramowana opcja sygnalizowania o ręcznym dodaniu środka chemicznego, urządzenie będzie pracować automatycznie do czasu wystąpienia zapotrzebowania na środek. Wówczas urządzenie zostanie zatrzymane, a po dodaniu środka działanie zostanie wznowione. Na ekranie wyświetlany jest rodzaj środka, który należy dodać. Jednak licznik czasu wstrzyknięcia jest uruchamiany dopiero po anulowaniu sygnału dla operatora.

If the formula is programmed to signal you to manually add chemicals, the machine will operate automatically until it needs a chemical, then the machine stops and waits for you to add the chemical and resume operation. The display changes to show you which chemical to add, but the injection time counter runs only after you cancel the operator signal.

Rysunek [Figure] **17: Widok wstrzyknięcia środka chemicznego na ekranie pracy [Chemical Injection View on Run Display]**



Display or Action [Display or Action]	Wyjaśnienie	Explanation
Po dodaniu środka chemicznego		After you've added the chemical,
	należy anulować sygnał dla operatora i uruchomić licznik czasu wstrzyknięcia.	cancels the operator signal and starts the injection time counter.

— Koniec BICWCT04 —

— End of BICWCT04 —

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Betriebshandbuch [Operator Guide]—

StaphGuard® Waschschleudermaschine mit Controller Mark VI [StaphGuard® Washer-extractor with Mark VI Controller]

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Lesen Sie das Sicherheitshandbuch

PELLERIN MILNOR CORPORATION POST OFFICE BOX 400, KENNER, LOUISIANA 70063 - 0400, U.S.A.

Anwendbare Milnor® Maschinen der Modelle: [Applicable Milnor® products by model number:]

42044SP2 42044SP3 60044SP2 60044SP3 72044SP2

Inhaltsverzeichnis [English table of contents follows]

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Kapitel 1 Steuerelemente

Chapter 1 Controls

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1.1. Steuerung Mark VI Wasch/Schleudermaschinen

Hinweis auf andere Abschnitte dieser Anleitung(Abschnitt 1.1.2 bis Abschnitt 1.1.4) in denen Anordnung und Basisfunktionen der Steuerung beschrieben sind. Benutzen sie dieses Dokument nicht als Anleitung für den Maschinenbetrieb!

Controls on Mark VI Non-Tilting Washer-extractors

Refer to other parts of this document (Section 1.1.2 through Section 1.1.4) for the location and basic function of individual controls. Don't use this document as instructions for operating the machine.

1.1.1. Wo befinden sich die Steuerelemente?

Die für den normalen Betrieb erforderlichen Steuerelemente befinden sich auf dem vorderen Bedienfeld (Abbildung 1). Zusätzliche Steuerelemente und Anschlüsse befinden sich, wie hier beschrieben, anderswo an der Maschine.

Where are the Controls?

The essential controls for normal operation are located on the front control panel (Figure 1). Additional controls and connections are located elsewhere on the machine, as described here.

Abbildung [Figure] **1: Platz der Steuerelemente [Locations of Controls]**

<table>
<tr><th>Vordere Linksansicht [Front Left View]</th><th>Hintere Ansicht [Rear View]</th><th>Legende [Legend]</th></tr>
<tr><td>
</td><td>
</td><td>A. Mikroprozessor Steuerungskasten (68036F_B angezeigt) [Microprocessor control box (68036F_B shown)]
B. Bedienfeld [Control panel]
C. Manuelle Spültaste [Manual supply flush button]
D. Hydraulik Mannometer für die Ladetür [Hydraulic pressure gauge for loading door]
E. Luftdruck Mannometer für Kippsystem (hinter der unteren Abdeckung) [Air pressure gauge for tilt system (behind lower rear panel)]</td></tr>
</table>

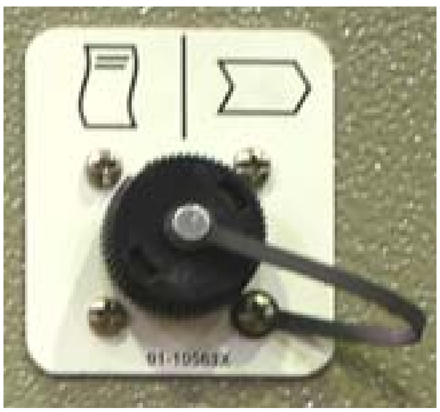
1.1.2. Wo schließe ich ein Gerät für den Datentransfer an?

Der Mikroprozessorkasten in der oberen, hinteren Ecke der Maschine, links (siehe Abbildung 1), beinhaltet einen DIN-genormten Anschluss für die serielle Kommunikation. Benutzen Sie diesen Anschluss, beschriftet wie in Abbildung 2, um ein Gerät für den Datentransfer (Externe Rechner) anzuschließen. Programme oder Konfigurationen können so gespeichert und abgelegt oder auf einem externen Rechner bestehende Programme in die Maschine kopiert werden.

Where do I Connect the Data Storage Device?

The microprocessor box in the upper rear corner of the machine left side panel (see Figure 1) contains a DIN-type connection for serial communications. Use this connection, labelled as shown in Figure 2, with a serial data transfer device to save or restore machine programming and configuration memory.

Abbildung [Figure] **2: Serielle Anschluss für den Datenaustausch [Serial Connection for Data Transfer]**



1.1.3. Was sind die Betriebssteuerelemente?

Die wichtigsten Betriebssteuerelemente sind erforderlich, um die Maschine zu starten und zu stoppen, das Waschprogramm zu wählen und den Betrieb der Maschine zu überwachen.

What are the Operating Controls?

The primary operating controls are required to start and stop the machine, select wash formulas, and monitor machine operation.

Abbildung [Figure] **3: Mark VI StaphGuard, Steuerelemente auf der Schmutzseite [Mark VI Staph Guard Soil Side Controls]**

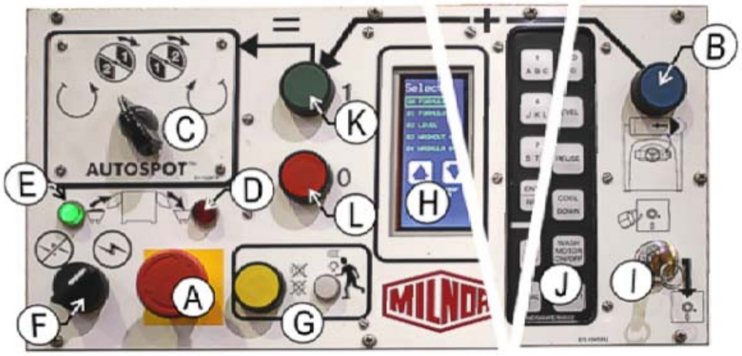
Bedienfeld [Control Panel]	Legende [Legend]
	**A.** *Notstopp* Taste [*Emergency stop* button] **B.** *Türentriegelung* Taste [*Door unlock* button] **C.** *Wahlschalter Jog/Autospot (Schrittbetrieb/Autospot)* Schalter [*Jog/Autospot selector* switch] **D.** *Steuerung an der sauberen Seite* Anzeige [*Control on clean side* indicator] **E.** *Steuerung auf der verschmutzten Seite* Anzeige [*Control on soil side* indicator] **F.** *Hauptschalter* für Stromversorgung [*Master switch* for power] **G.** *Bedienersignal* und *Signal löschen* Taste [*Operator signal* and *signal cancel* button] **H.** Flüssigkristall-Grafikanzeige [Liquid crystal graphic display] **I.** *Schlüsselschalter Run/Program (Betrieb/Programmieren)* [*Run/Program keyswitch*] **J.** Tastenfeld [Keypad] **K.** *Start* Taster [*Start* button] **L.** *Stopp* Taster [*Stop* button]

Abbildung [Figure] **4: Tastenfeld [Keypad]**



Abbildung [Figure] **5: Typische Steuerelemente für die Staph-Abdeckung auf der sauberen Seite [Typical Staph Guard Clean Side Controls]**

Bedienfeld [Control Panel]



Legende [Legend]

- **A.** *Notstopp* Taste [*Emergency stop* button]
- **B.** *Türentriegelung* Taste [*Door unlock* button]
- **C.** *Wahlschalter Jog/Autospot (Schrittbetrieb/Autospot)* Schalter [*Jog/Autospot selector* switch]
- **D.** *Steuerung an der sauberen Seite* Anzeige [*Control on clean side* indicator]
- **E.** *Steuerung auf der verschmutzten Seite* Anzeige [*Control on soil side* indicator]
- **F.** *Steuerungstransfer* Taste [*Control transfer* button]
- **G.** *Jog/Spot (Schrittbetrieb/Spot)* Taste [*Jog/spot* button]

Notaus—unterbricht den Sicherheitsstromkreis. Diese Taste rastet ein wenn sie gedrückt wird, Sie müssen ihn durch leichtes drehen in die Ausgangsposition bringen, um die Maschine erneut starten zu können.

Beachtung 1 **:** Drücken Sie im Notfall sofort die *Notaus* Taste. Der Sicherheitsstromkreis wird unterbrochen, stoppt den Betrieb der Maschine und ermöglicht es, den Abfluss zu öffnen.

Emergency stop button—disables the 3-wire circuit. This switch locks in when pressed, so you must turn it a quarter turn to allow it to return to the normal position to allow the machine to run.

Notice 1 **:** Press the *emergency stop* button immediately in any emergency situation. This disables the 3-wire circuit,

- Wenn Sie diese Taste zurücksetzen, haben Sie die Möglichkeit das unterbrochene Programm abzubrechen oder fortzusetzen. Das Programm macht an der Stelle weiter, wo es unterbrochen wurde oder am Anfang des vorherigen Waschschrittes. Es kommt darauf an, in welcher Phase des Programmes die *Notaus* Taste gedrückt wurde.

Hauptenergieschalter (/)—nimmt die Energie vom Steuerungssystem. Wenn Sie den *Hauptschalter* ausschalten ( ) während ein Programm läuft, ist das umgehende Ergebnis ähnlich dem, als würden Sie die *Notaus* Taste drücken: die Maschine stoppt und der Abfluss öffnet sich. Im Gegensatz zur *Notaus* Taste, starten wiederaufgenommene Programme am Anfang des Schritts, in dem die Energie abgeschaltet wurde. Waschmittel werden allerdings nicht wieder in dem wiederaufgenommenem Schritt eingespült.

Benutzersignalabbruch-Taste ( )—bricht den *Benutzersignal* ab. Drücken Sie diese Taste, um den Summer abzustellen und schalten Sie das *Benutzersignal* Licht aus (siehe unten), oder um ein Signal vor dem programmierten Einspülen zu erhalten.

Benutzersignal Licht—zeigt einen Fehler an oder dass der Benutzer handeln muss, wie die *Start* Taste drücken oder die Maschine entladen. Die *Benutzersignal* Steuerung beinhaltet einen Summer hinter dem Bedienfeld. Optional gibt es ein an der Maschine angebrachtes Blinklicht das zusätzlich ein optisches Signal gibt.

Flüssigkristallgrafikanzeige—zeigt Informationen und Hilfen für die Maschine an. Die Informationen auf dem Display wechseln, je nach Status der Maschine und der vom Benutzer gewählten Funktion.

Tastenfeld—erlaubt dem Benutzer, mit dem Steuersystem der Maschine zu kommunizieren. Das Tastenfeld ist in drei Bereiche aufgeteilt: Alphanumerische Tasten, allgemeine Tasten und funktionsspezifische Tasten. Jede Taste kann mehr als eine Funktion haben, basierend auf dem gegenwärtigen Maschinenstatus. Einige Tasten werden auch in Kombination für zusätzliche Funktionen benutzt.

which stops all machine operation and causes the drain to open.

- When you reset this button, you have the option of cancelling or resuming the interrupted formula. The formula resumes where it was interrupted or at the beginning of the previous bath step, depending on the operation in progress when the *emergency stop* button was pressed.

Master power switch (/)—removes power from the control system. If you turn the *master switch* off ( ) while a formula is running, the immediate result is similar to pressing the *emergency stop* button: the machine stops and the drain opens. Unlike the *emergency stop* button, resumed formulas start at the beginning of the step in which power was lost, but chemicals are not injected in the resumed step.

Operator signal cancel button ( )—cancels the *operator signal*. Press this button to silence the buzzer and turn off the *operator signal* light (see below), or to allow injection of a chemical programmed to require a signal before injection.

Operator signal light—indicates that the machine has encountered an error or that the operator must perform some action, such as pressing the *start* button or unloading the machine. The *operator signal* circuit includes a buzzer behind the control panel, and may include an optional beacon light mounted separately from the control panel.

Liquid crystal graphic display—displays information and help about the machine. The information on the display changes according to the status of the machine and the function selected by the operator.

Keypad—allows the operator to communicate with the machine control system. The keypad is divided into three areas: alphanumeric buttons, general buttons, and function-specific buttons. Each button may perform more than one function, based on the current machine status. Some buttons are also used in

Starttaste ( )—startet das gewählte Waschprogramm. Die *Start* Taste versorgt Sicherheitsstromkreis mit Strom, um die Maschine betriebsbereit zu machen.

Stopptaste ( )—stoppt den Maschinenbetrieb. Wie die *Notaus* Taste unterbricht auch die *Stopp* Taste den Sicherheitsstromkreis; die *Stopp* Taste muss nicht manuell zurückgesezt werden.

Betrieb/Programmieren Schlüsselschalter (/)—in der *Programm* Position, ermöglicht Änderung der Maschinenkonfiguration und der Waschprogramme, neben anderen Optionen. In der normalen *Betrieb* Position sind Programme und Änderungen geschützt. Programme können gestartet werden.

combinations for additional functions.

Start button ( )—starts the selected wash formula. The *start* button energizes the 3-wire circuit to allow the machine to operate.

Stop button ( )—stops machine operation. Like the *emergency stop* button, the *stop* button disables the 3-wire circuit; however, the *stop* button doesn't require you to manually reset it after use.

Run/Program keyswitch (/)—in the *Program* position, allows changes to machine configuration and wash formulas, among other actions. In the normal *Run* position, formulas and configuration are protected and formulas can be run.

1.1.4. Was macht dieser Schalter?

Andere Tasten und Schalter werden benutzt, um andere standart- und optionale Funktionen der Maschine zu steuern. Diese verschiedenen Steuerelemente befinden sich in diesem Abschnitt und werden hier beschrieben.

Mildata/Lokal-Schalter (Abbildung 6)—befindet sich am Mikroprozessor Kontrollkasten (siehe Abbildung 1), ermöglicht der Maschine, mit einem Mildata Netzwerk zu kommunizieren. Ein Mildata Netzwerk kann mehrere Maschinen zusammenschalten und ermöglicht es, Waschprogramme und andere Daten mit dem Mildata Computer auszutauschen. Wenn dieser Schalter sich in der *Mildata* Position ( ) befindet und Sie eine Programmnummer eingeben, erbittet die Maschine die Inhalte des Programms vom Mildata Computer. Wenn Sie ihn in die *Lokal* Position setzen ( ), werden nur Programme gezeigt, die **in der Maschine** verfügbar sind.

What does this Switch do?

Other buttons and switches are used to control additional standard and optional machine functions. These miscellaneous controls are located and described in this section.

Mildata/Local selector switch (Figure 6)—located on the microprocessor control box (see Figure 1), allows the machine to communicate with a Mildata network. A Mildata network connects several machines together and allows them to share wash formulas and other data with the Mildata computer. When this switch is in the *Mildata* position ( ) and you enter a formula number, the machine requests the contents of the formula from the Mildata computer. When set to the *Local* position ( ), only formulas present **in the machine** are available.

Abbildung [Figure] **6: Mildata/Lokal-Schalter [Mildata/Local Selector switch]**



Manuelle Spültaste (Abbildung 7)—Bei Maschinen

Manual supply flush button (Figure

die optional mit einer manuellen Waschmitteleinspülung ausgestattet sind, drücken Sie diese Taste um Waschmittelrückstände in die Maschine zu spülen. Wenn Sie die manuell Versorgungen während eines Waschprogrammes benutzen wollen, drücken Sie diese Taste um restliches unverdünntes Waschmittel aus der Versorgungsrutsche zu spülen. Für den Fall, dass die Maschine nicht mit einer manuellen Waschmitteleinspülung ausgestattet ist, werden durch Betätigung dieser Taste die Kammern der Flüssigdosierung gespült.

7)—On machines equipped with an optional flushing supply injector, press this button to spray water into the supply injector to flush any remaining chemicals into the cylinder. If you manually add supplies during a wash formula, press this button to flush any remaining undiluted chemicals out of the supply chute. If the machine is not equipped with the optional supply injector, press this button to flush the liquid chemical inlets with fresh water.

Abbildung [Figure] **7: Manuelle Spültaste [Manual Supply Flush button]**



Autospot Auswahlschalter (Abbildung 8)—Einige Maschinen mit geteilter Trommel sind mit der *Autospot* Funktion ausgestattet um das Be- und Entladen zu erleichtern. Diese Funktion positioniert exakt die ausgewählte Kammer der Trommel.

Autospot selector switch (Figure 8)—Some divided-cylinder machines are equipped with the *Autospot* feature to aid in loading and unloading. This optional feature optimally positions the basket for access to the selected pocket.

Abbildung [Figure] **8: Autospot Auswahlschalter [Autospot selector switch]**



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Kapitel 2 Normalbetrieb

Chapter 2 Normal Operation

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2.1. Arbeitsanweisungen für Betriebspersonal

Operating Instructions for Plant Personnel

2.1.1. Beginnen Sie hier, bezüglich der Sicherheit

Dieses Dokument hat die Aufgabe den Maschinenbenutzer über alles Erforderliche für den Umgang mit dieser Maschine zu informieren. Bedienen Sie diese Maschine nicht, bevor ein erfahrener Mitarbeiter Ihnen die Details des Umganges mit dieser Maschine erklärt hat.

VORSICHT GEFAHR 2: Mehrfache Gefahren —Unvorsichtige Bedienung kann zu Verletzung oder gar Tod von Personen führen, zur Beschädigung oder Zerstörung der Maschine und anderer Gegenstände sowie zum Erlöschen der Garantie.

VORSICHT GEFAHR 3: Todes- und Verbrennungsgefahr durch Stromschlag—Die Berührung von unter Hochspannung stehenden Teilen kann ernsthafte Verletzungen oder Stromschlag mit Todesfolge hervorrufen. Hochspannung liegt im Inneren des Schaltschranks an, solange der Trennschalter für die Stromversorgung zur Maschine nicht ausgeschaltet ist.

- Entriegeln oder öffnen Sie nicht die Türen der Schaltkästen.
- Machen Sie sich mit der Position des Hauptschalters der Maschine vertraut und betätigen Sie diesen im Notfall, damit kein Strom mehr an der Maschine anliegt.
- Die Maschine darf ausschließlich von qualifiziertem und autorisiertem Personal

Start Here for Safety

This document is meant to remind you, the person operating this washer extractor, of what is required to operate this machine. Do not attempt to operate this machine before an experienced, trained operator explains the details to you.

DANGER 2: Multiple Hazards—Careless operator actions can kill or injure personnel, damage or destroy the machine, damage property, and/or void the warranty.

DANGER 3: Electrocution and Electrical Burn Hazards—Contact with electric power can kill or seriously injure you. Electric power is present inside the cabinetry unless the main machine power disconnect is off.

- Do not unlock or open electric box doors.
- Know the location of the main machine disconnect and use it in an emergency to remove all electric power from the machine.
- Do not service the machine unless qualified and authorized. You must clearly understand the hazards and how to avoid them.

instandgesetzt werden. Sie müssen die Gefahrenquellen eindeutig verstanden haben und wissen, wie Gefahren zu vermeiden sind.

ACHTUNG 4: Zusammenstoß, Erdrücken und Qquetschungen—Berührung von sich bewegenden Teilen, die normalerweise durch Führungen, Abdeckungen oder Seitenbleche abgeschirmt sind, kann Gliedmaßen einquetschen und Stoßverletzungen hervorrufen. Diese Teile bewegen sich automatisch.

CAUTION 4: Collision, Crushing and Pinch Hazards—Contact with moving components normally isolated by guards, covers, and panels, can entangle and crush your limbs. These components move automatically.

2.1.2. Überprüfen Sie die Schalterstellungen

Check Switch Settings

Anzeige oder Aktion [Display or Action]	Erklärung	Explanation
	Überprüfen Sie, ob der *Betrieb/Programmieren* Schlüsselschalter auf steht.	Check that the *run/program* keyswitch is at .
	Um die Maschine in Betrieb nehmen zu können, müssen alle Notaus-Schalter unbetätigt und in der Position *Bereit* sein.	All emergency stop buttons must be unlatched and in the *ready* position to allow machine operation.
/	Stellen Sie sicher, dass der Hauptschalter auf steht.	Check that the master switch is at .

2.1.3. Beladen einer StaphGuard® Maschine

How do I Load a StaphGuard® Machine?

Anzeige oder Aktion [Display or Action]	Erklärung	Explanation
+	Öffnen Sie die Tür.	Open the outer door.
	Wählen Sie eine Tasche zur Beladung aus.	Select a pocket to load.
+ ①	Richten Sie die gewählte Tasche auf die Außentür aus.	Align the selected pocket with the outer door.
	Öffnen Sie die innere Tür der ersten Kammer	Open the inner door of the first pocket to load.

Beladen Sie die Maschine wie für dieses Programm vorgesehen.

Use the procedure defined by facility management to put the goods in the machine.

Anzeige oder Aktion [Display or Action]	Erklärung	Explanation
	Schließen und verriegeln Sie die Innentür.	Close and latch the inner door.
	Öffnen Sie die innere Tür der ersten Kammer	Open the inner door of the first pocket to load.

Alle Taschen müssen mit ähnlichem Ladegut mit etwa gleichem Gewicht beladen werden.

Verify that all pockets are loaded with similar goods to about the same weight.

2.1.4. Wie wähle ich ein Programm?

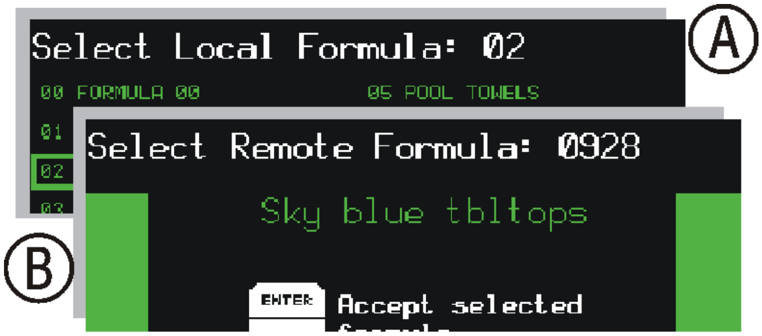
Der Mark VI Controller kann entweder im *lokal* oder im *Mildata* Modus arbeiten. Im *lokal* Modus kann die Maschine nicht mit anderen Geräten kommunizieren. Es sind nur Programme verfügbar die im lokalen Speicher abgelegt sind. Im *Mildata* Modus lädt die Maschine Programme runter und lässt Programme vom Mildata Computer laufen und aktualisiert stets das Display des Mildata Computers.

How do I Select a Formula?

The Mark VI controller can operate in either *local* or *Mildata* mode. In *local* mode, the machine does not communicate with any other devices and runs formulas contained in local controller memory. In *Mildata* mode the machine downloads and runs formulas from the Mildata computer, and frequently updates the display on the Mildata computer.

Abbildung [Figure] **9: Auswählen eines lokalen oder abgelegten Programms. [Selecting a Local or Remote Formula]**

***Wählen Sie ein Programm* Displays [*Select Program* Displays]**



Legende [Legend]

A. Lokal (Mildata nicht vorhanden oder befähigt) [Local (Mildata not present or enabled)]

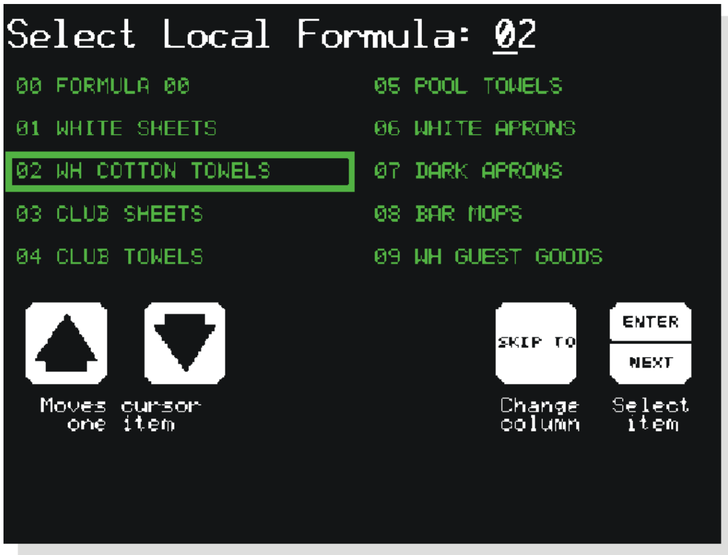
B. Abgelegt (Mildata berechtigt) [Remote (Mildata enabled)]

2.1.4.1. Auswahl eines lokalen Programms

Auswahl eines lokalen Programms—Falls die Maschine nicht Teil eines Mildata Netzwerkes ist, oder das Mildata Netzwerk nicht verfügbar ist, können Sie eines der Waschprogramme wählen, die im lokalen Speicher der Maschine abgelegt sind. Benutzen Sie den *Wählen Sie lokales Programm* Bildschirm (Abbildung 10) um das gewünschte Programm aufzurufen.

Selecting a Local Formula—If the machine is not part of a Mildata network, or if the Mildata network is not available, you can choose from any of the wash formulas stored in local memory on the machine. Use the *Select Local Formula* screen (Figure 10) to choose the correct formula for the goods in the machine.

Abbildung [Figure] **10: *Wählen Sie lokales Programm* Bildschirm [*Select Local Formula* Screen]**



Anzeige oder Aktion [Display or Action]	**Erklärung**	**Explanation**
0 7	Wählen Sie das Programm, das Sie nutzen wollen (07 zum Beispiel). Wenn Sie eine zweistellige Nummer eingeben, bewegt sich das gewählte Programm an den Anfang der linken Spalte dieses Bildschirms.	Directly selects the formula you want to run (07, for example). When you enter a two-digit number, the selected formula moves to the top of the left column on this screen.
SKIP TO	Wechseln Sie in die Spalte für Programmauswahl, falls notwendig. Wenn das gewünschte Programm sichtbar ist, sich aber in der gegenüberliegenden Spalte des Auswahlkästchens befindet, so lässt sich das Auswahlkästchen mit diesem Tastendruck in die andere Spalte der Programme schieben.	Toggles the column for formula selection if necessary. If the desired formula is visible on the screen, but is in the opposite column from the selection box, this keystroke moves the selection box to the other column of formulas.
↓ / ↑	Gehen Sie zum nächsten oder vorherigen angezeigten Programm in der aktuellen Spalte. Wenn das gewünschte Programm auf dem Bildschirm zu sehen ist und in derselben Spalte wie das Auswahlkästchen, können Sie diese beiden Tasten benutzen, um das Kästchen hoch- oder runterzubewegen.	Move to the next or previous displayed formula in the current column. If the desired formula is visible on the screen and in the same column as the selection box, you can use these two keys to move the selection box down or up to select the formula.

Anzeige oder Aktion [Display or Action]	**Erklärung**	**Explanation**
ENTER	Bestätigen Sie das gewählte Programm. Platzieren Sie das Auswahlkästchen in dem gewählten Programm. Dann drücken Sie ENTER, um mit dem normalen Arbeitsgang fortzufahren.	Confirm the selected formula. Place the selection box on the formula you want to run, then press ENTER to continue with the normal operation procedures.

Ergänzung 1

Über das Gewicht der Ladung und *Gemessenes Wasser*

Gemessenes Wasser ist in Mark VI Wasch/Schleudermaschinen verfügbar, ausgerüstet mit optionalen Durchflussmessern um die eingespülte Wassermenge zu kontrollieren. Diese Funktion ermöglicht es der Mark VI Steuerung proportional zu dem geladenen Gewicht Wasser zuzugeben. Bei einem Gewicht von 200 Einheiten wird die Maschine doppelt so viel Wasser einspülen, als bei 100 Einheiten. Bei korrekter Eingabe des Gewichts kann eine beträchtliche Menge Wasser gespart werden.

Supplement 1

About Load Weight and *Metered Water*

Metered water is available on Mark VI washer-extractors equipped with optional flow meters on the incoming water lines. This feature allows the Mark VI controller to admit a quantity of water proportional to the weight of goods you enter after selecting the formula. If you enter a weight of 200 units when prompted, the machine will use twice as much water as if you entered 100 weight units. This option can save a significant amount of water if you enter accurate weights for each load.

Abbildung [Figure] **11: Geladenes Gewicht für gemessenes Wasser [Entering Load Weight for Metered Water]**



Anzeige oder Aktion [Display or Action]	**Erklärung**	**Explanation**
4 4 9	Geben Sie das Gewicht der Wäsche an, die sich in der Maschine befindet. Die Maschinensteuerung nutzt das Gewicht um zu bestimmen, wie viel Wasser notwendig ist, die Wäsche zu waschen, entsprechend dem Waschprogramm.	Enter the weight of the goods loaded in the machine. The machine controller uses the weight to determine how much water is needed to wash the goods according to the programmed wash formula.
ENTER	Bestätigen Sie das eingegebene Wäschegewicht und fahren Sie fort.	Accept the entered goods weight and continue.

2.1.4.2. Auswählen eines Mildata Programms—Wenn die Maschine Teil eines Mildata Netzwerks ist und das Netzwerk verfügbar ist, können Sie irgendein Waschprogramm wählen, das auf dem Mildata Computer gespeichert ist. Benutzen Sie den *Wählen Sie ein abgelegtes Programm* Bildschirm (Abbildung 12), um ein geeignetes Programm für die Wäsche in der Maschine auszuwählen.

Anmerkung 1: Sie können bis zu 1000 verschiedene Waschprogramme auf dem Mildata Computer speichern. Alle dieser Programme sind für alle Wasch/Schleudermaschinen verfügbar, die Teil des Mildata Netzwerks sind und kompatible Hardware haben.

Selecting a Mildata Formula—If the machine is part of a Mildata network and the network is available, you can choose any wash formula stored on the Mildata computer. Use the *Select Remote Formula* screen (Figure 12) to choose the best formula for the goods in the machine.

Note 1: You can store up to 1000 different wash formulas on the Mildata computer. All of these formulas are available to all washer-extractors that are part of the Mildata network and have compatible hardware.

Abbildung [Figure] **12: *Wählen Sie ein abgelegtes Programm* Bildschirm [*Select Remote Formula* Screen]**



Anzeige oder Aktion [Display or Action]	Erklärung	Explanation
0 9 2 8	Wählen Sie Programm 928 (Beispiel), welches auf dem Mildata Computer gespeichert ist. Die MarkVI Steuerung bittet um das Programm vom Mildata Computer und zeigt den Programmnamen an, wie in Abbildung 12 gezeigt wird.	Select formula 928 (example) stored on the Mildata computer. The Mark VI controller requests the formula from the Mildata computer and displays the formula name, as shown in Figure 12.
ENTER	Bestätigen Sie, daß der angezeigte Programmname das Programm ist, das Sie gewählt haben. Falls das angezeigte Programm nicht das richtige für die geladenen Wäsche ist, drücken Sie CANCEL, um die Programmnummer zu löschen. Dann geben Sie eine andere Nummer ein.	Confirm that the displayed formula name is the formula you want to run. If the displayed formula isn't the right one for the loaded goods, press CANCEL to clear the formula number, then enter another number.

Nachdem Sie das Programm zurückgeholt und überprüft haben, sagt die Mark VI Steuerung *Waschladungs Daten (batch data)* voraus.

After you've retrieved and verified the formula, the Mark VI controller prompts for any configured *batch data*.

2.1.4.3. *"Mildata Batchcodes"* eingeben—Der Mark VI Controller benutzt ein Bild ähnlich dem Abbildung 13, um Ihnen die der Maschinenkonfiguration angewählten Waschladung Felder (batch data fields) vorauszusagen. Die eigegebenen Daten werden zum Mildatacomputer gesendet, um eine Übersicht zu erstellen.

Entering *Mildata Batch Codes*—The Mark VI controller uses a screen similar Figure 13 to prompt you for the batch data fields selected in machine configuration (see the related section in document BICWCC01). The data you enter is sent to the Mildata computer for accounting and report generation.

Abbildung [Figure] **13: Waschladungs Daten für abgelegte Programmoperationen [Batch Data for Remote Formula Operation]**



Gewicht—das Gewicht der Waschladung in der Maschine. Diese Information wird normalerweise parallel mit anderen Waschladungs Daten benutzt, um Kundenkosten zu berechnen oder die Produktivität der Angestellten. In Maschinen, die mit optionalen Durchflussmessern ausgestattet sind und für gemessenes Wasser konfiguriert sind, wird der Gewichtswert auch benutzt, um zu ermitteln, wie viel Wasser notwendig ist, um den Stapel zu verarbeiten. Der Gewichtswert kann drei Stellen lang sein.

Kunden Code—der Identifikationscode für den Kunden. Diese Information kann Ihnen helfen zu ermitteln, wie viel Arbeit jeder Kunde einreicht. Zehn Stellen sind für den Kundencode verfügbar.

Angestelltennummer—Der Identifikationscode für den Angestellten ist verantwortlich für diese Waschladung. Die Angestelltennummer kann fünf Stellen lang sein.

Stücke—die Anzahl der Stücke in der Maschine. Dieser Wert ersetzt manchmal den Gewichtswert, besonders bei Wäschetypen bei denen die Stückzahl entscheident ist. Vier Stellen stehen für die Stückzahl zur Verfühgung.

Anzahl—Der Identifizierungscode für mehrere miteinander verbundene Waschladungen oder Kunden. Aus Gründen der Diskretion, der hier eingegebene Wert kann eine bestimmte Routenummer gemeinsam für verschiedene Konten repräsentieren. Die Anzahl kann zehn Stellen lang sein.

Weight—the weight of the batch of goods in the machine. This information is usually used along with other batch data to calculate customer charges or employee productivity. In machines equiped with optional flow meters and configured for metered water, the weight value is also used to determine how much water is required to process the batch. The weight value can be up to three digits.

Customer Code—the identifying code for the customer. This information can help you determine how much work each customer is submitting. Ten digits are available for customer code.

Employee Number—the identifying code for the employee responsible for this batch. The employee number may be up to five digits long.

Pieces—the number of pieces in the machine. This value sometimes replaces the weight value, especially when charges are made by the piece rather than by weight. Four digits are available for the number of pieces.

Lot Number—the identifying code for several related batches or customers. At your discretion, the value entered here might represent a particular route number common to several accounts. A lot number can be up to 10 digits long.

2.1.5. Starten Sie das gewählte Programm

Versichern Sie sich, daß Sie diese Schritte beendet haben, bevor mit dem Arbeitsgang fortfahren.

1. Sie haben die Maschine beladen, dass oder bis fast die Gewichtskapazität erreicht ist.
2. Sie haben ein Programm gewählt, das für die Wäsche in der Maschine geeignet ist.
3. Sie Waschladungs Daten eingegeben, die Maschinensteuerung für gemessene Wassermenge oder den Mildatareport benötigt.
4. Sie haben die Tür geschlossen.

Start the Selected Formula

Be sure you've completed these steps before you go any further in the operating procedure.

1. You've loaded the machine at or near its rated weight capacity.
2. You've selected a formula that's appropriate for the goods in the machine.
3. You've entered any batch data the machine controller requires for metered water or Mildata reporting.
4. You've closed the door.

Anzeige oder Aktion **[Display or Action]**	**Erklärung**	**Explanation**
①	Starten Sie das gewählte Programm.	Start the selected formula.

Die Maschine startet das Waschprogramm. Die Trommel beginnt, sich zu drehen und das Wasserventil öffnet sich. Wenn ein sicheres Level erreicht ist, kann sich das Dampfventil öffnen, um das Bad zu heizen. Der Prozess ist von diesem Punkt bis zum Ende des Programms komplett automatisch, es sei denn, ein Programm mit einer Waschmitteleinspülung ist programmiert (siehe Ergänzung 2).

The machine begins the wash formula. The basket begins turning and water valves open. When a safe level is achieved, the steam valve may open to begin heating the bath. Operation from this point to the end of the formula is completely automatic unless a signal is programmed with a chemical injection (see Supplement 2).

Ergänzung 2

Waschmitteleinspülung mit dem Signal

Wenn die Menge der injezierten Chemikalien/Waschmittel varieren, kann ein Stop und ein Signal programmiert werden, wenn benötigt. Nachdem Chemikalien/Waschmittel hinzugefügt wurden, drücken, um mit dem Programm fortzufahren.

Supplement 2

Chemical Injections with the Operator Signal

If you need to adjust the amount of a chemical injection from load to load depending on highly variable factors, the formula can be programmed to stop the timer and signal you when a chemical is required. Add the chemical, then press to resume the formula.

2.1.6. Welche Informationen gibt mir das *Betrieb* Display?

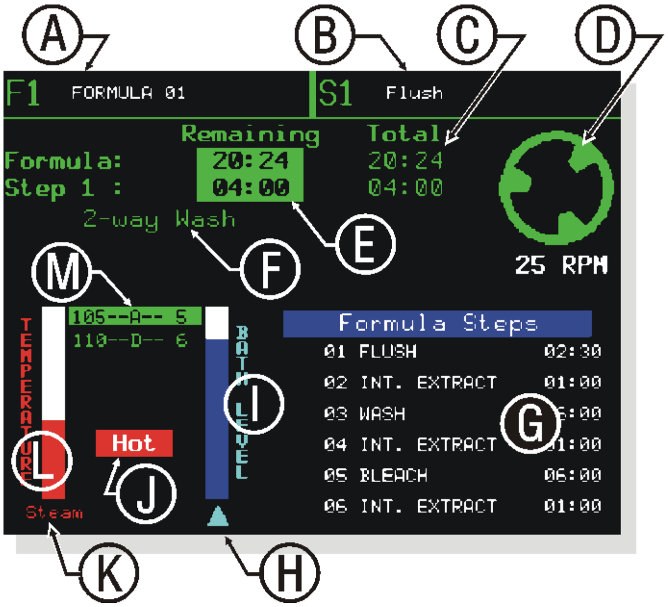
Während das gewählte Programm läuft, erscheint das Display ähnlich wie in dem gezeigten Abbildung 14. Die hier gezeigte Information ist unten erklärt.

What Does the *Run* Display Tell Me?

While the machine is running the formula you selected, the display appears similar to the one shown in Figure 14. The information shown here is explained below.

Abbildung [Figure] **14: Wie man das *Betrieb* Display liest [How to Read the *Run* Display]**

Typisches Display [Typical Display]



Legende [Legend]

A. Programmnummer und Name [Formula number and name]

B. Schrittnummer und Name [Step number and name]

C. Gesamtzeit für das Programm und den laufenden Schritt [Total time for formula and current step]

D. Trommeldrehgrafik und Geschwindigkeit [Basket rotation graphic and speed]

E. Verbleibende Zeit für das vollständige Programm und den laufenden Schritt [Remaining time for entire formula and current step]

F. Maschinenstatus Nachricht [Machine status message]

G. Programmschritte: Nummer, Name und Dauer [Formula steps: number, name, and duration]

H. Anzeige für das Füllen oder Ablaufenlassen [Indicator for filling or draining]

I. Grafische Wasserstandanzeige [Graphic bath level indicator]

J. Wasserventilanzeige [Water valves indicators]

K. Anzeige für optionalen Dampf und Abkühlventile [Indicator for optional steam and cooldown valves]

L. Grafische Wassertemperaturanzeige [Graphic bath temperature indicator]

M. Wassertemperatur und Leveldaten [Bath temperature and level data]

2.1.6.1. Programm und Schrittinformation—Die oberste Zeile des Displays zeigt immer die Nummer und den Namen des laufenden Programms und Schritts. Die *Programmnummer* erscheint in der oberen linken Ecke des Displays, folgend dem Buchstaben “F.”. Der *Programmname* folgt der Nummer.

Formula and Step Information—The top line of the display always shows the number and name of the current formula and step. The *formula number* appears in the upper left corner of the display, following the letter “F.”The *formula name* follows the number.

Die *Schrittnummer und Name des laufenden Schritts* werden rechts neben der Programminformation angezeigt. Die Mark VI Steuerung aktualisiert

The *step number and name of the current step* are displayed to the right of the formula

Programmnummer und -namen, wenn ein Programm startet und zu Beginn jedes späteren Schritts.

information. The Mark VI controller updates the formula number and name when a formula starts and at the beginning of each subsequent step.

Unterhalb der Programm-und Schrittnamen befinden sich *Zeitinformationen*. Die Nummern in der "Gesamt" Spalte (grüne Nummern) zeigen die Gesamtzeit an, die bis Ende eines Programms bzw. Schrittes benötigt wird. Faktoren, wie in Anmerkung 2 beschrieben, sind nicht berücksichtigt. Die Steuerung berechnet die "Programm" Werte, wenn das Programm startet. Diese Werte ändern sich nicht während des Programmablaufs. Beim Start jedes einzelnen Schrittes berechnet die Steuerung die "Schritt x" Werte und zeigt sie auf dem Display an.

Below the formula and step names is *time information*. The numbers in the "Total" column (green numbers) show the total time required for the formula and step to run to completion, not including the factors described in Note 2. The controller calculates the "Formula" value when the formula begins, and this value doesn't change while the formula is running. The controller calculates and displays the "Step x" value at the start of each step.

Die Nummern in der "verbleiben" Spalte des Zeitraumes (schwarze Nummern auf grünem Hintergrund) zeigen den *Zeit verbleiben* in dem Programm und in dem laufenden Schritt an. Diese Nummern zeigen den **Minimum** an die Menge der verbleibenden Zeit (siehe Anmerkung 2).

The numbers in the "Remaining" column of the time area (black numbers on a green background) indicate the *time remaining* in the formula and in the current step. These numbers indicate the **minimum** amount of time remaining (see Note 2).

Anmerkung 2: Die Dauer einiger Schritte in einem Waschprogramm können nicht eingeschätzt werden, so daß der Benutzer den Timer stoppen muss, sobald die Dauer den Anforderungen entspricht. Zum Beispiel, die erforderte Zeit die Maschine bis zum gewünschten Level zu Füllen hängt von dem Wasserdruck des Betriebs, der Größe der Rohrleitung der Maschine und wie viele andere Maschinen zur selben Zeit befüllt werden. Zusätzlich zu der erforderten Zeit zum Füllen, braucht man Zeit um die Temperatur zu erreichen oder für einen Benutzer der überprüft, ob eine Waschmitteleinspülung veränderlich ist. Fehlerbedingungen können ebenfalls den Timer stoppen.

Note 2: The duration of some wash formula events can't be estimated, so the controller stops the timer until a requirement is met. For example, the time required for the machine to fill to the desired level depends on the water pressure to the plant, the size of the piping to the machine, and how many other machines are filling at the same time. In addition to the time required to fill, the time required to achieve temperature or for an operator to verify a chemical injection are variable. Error conditions can also stop the timer.

Die Steuerung zeigt den laufenden *Maschinenstatus* unterhalb der Schrittnummer und der verbleibenden Zeit. Einige der möglichen Maschinenzustände sind in Tabelle 1 aufgeführt. Fehlermeldungen erscheinen sofort unterhalb der Maschinenstatus Nachricht, falls erforderlich.

The controller displays the current *machine status* below the step number and remaining time. Some of the possible machine states are listed in Table 1. Error messages appear immediately below the machine status message when required.

Tabelle 1: Maschinenstatus Nachrichten [English table follows]

Außer Betrieb	Leerlauf
Einweg Wäsche	Auf das Entladen warten
Reversierend Waschen	Auf die Ladung warten
einweichen	Energieschubverzögerung
Vor+Leztes Schleudern	Ablaufenlassen in den abwasserkanal
Zwischenschleudern	Ablaufenlassen zum wiederbenutzen
Letztes Schleudern	Timer gestoppt
Doppel Schleudern	Bitte warten Sie xx Sekunden

Table 1: Machine Status Messages

Idle	Coasting
1-way Wash	Waiting to Discharge
2-way Wash	Waiting for Load
Soak	Power-up Delay
Pre+Final Extract	Draining to Sewer
Intermediate Extract	Draining to Reuse
Final Extract	Timer Stopped
Double Extract	Please Wait xx Seconds

2.1.6.2. Trommelrotation—Der *Trommelrotationsgrafik* in der Nähe der oberen rechten Ecke des Displays steht für die relative Trommelgeschwindigkeite beim Waschen, Ablaufenlassen und Schleudergeschwindigkeiten. Direkt unterhalb der Trommelrotationsgrafik zeigt die Steuerung die gewünschte Trommelgeschwindigkeit entweder in Umdrehung pro Minute (RPMs) oder in gravitationalen Einheiten (Gs).

Basket Rotation—The *basket rotation graphic* near the upper right corner of the display represents the relative basket speeds in wash, drain, and extract speeds. Immediately below the basket rotation graphic, the controller displays the desired basket speed in either revolutions per minute (RPMs) or in gravitational units (G's).

2.1.6.3. Wassertemperatur und Level—*Wasserventilanzeiger* erscheint, wenn das entsprechende Wasserventil offen ist.

Die Grafik *Wassertemperaturanzeiger* zeigt die ungefähre Temperatur in der Maschine. Der senkrechte Anzeigenstab ist rot, wenn die Temperatur in der Maschine auf dem maximal erlaubten Wert von 95°C ist (205°Fahrenheit).

Der Dampf- oder Abkühlanzeiger erscheint unterhalb des Grafiktemperaturanzeigers, wenn eines dieser beiden optionalen Merkmale eingeschaltet ist. “Dampf” erscheint wenn das Dampfventil offen ist, und “Abkühlen” erscheint, wenn der Abkühloutput eigeschaltet ist.

Die Grafik *Wasserlevel Anzeiger* zeigt den Prozentsatz des gewünschten Levels, das erreicht ist. Der senkrechte Anzeigenstab ist blau, wenn das

Bath Temperature and Level—*Water valve indicators* appear when the corresponding water valve is open.

The graphic *bath temperature indicator* shows the approximate temperature in the machine. The vertical indicator bar is solid red when the temperature in the machine is at the maximum allowable value of 205 degrees Fahrenheit (95 degrees Celsius).

The steam or cooldown indicator appears below the graphic temperature indicator when either of these optional features is enabled. “Steam” appears when the steam valve is open, and “Cooldown” appears when the cooldown output is enabled.

The graphic *bath level indicator* shows the percentage of the desired level that's

programmierte Level erreicht ist. Er ist weiß, wenn kein Wasser in der Maschine ist.

achieved. The vertical indicator bar is solid blue when the programmed level is achieved, and solid white when there is no water in the machine.

Der *Level Richtungsanzeigepfeil* zeigt nach oben, wenn das aktuelle Wasserlevel in der Maschine steigt (wenn die Maschine sich füllt), und zeigt nach unten, wenn sich der Abfluß öffnet. Der Pfeil ist nicht sichtbar, wenn das Level erreicht ist oder während Extraktionsschritten.

The *level direction indicator arrow* points upward when the actual bath level in the machine is increasing (when the machine is filling), and points downward when the drain opens. The arrow is not visible when level is achieved, or during extract steps.

Die Steuerung zeigt *Wassertemperatur und Leveldaten* an zwischen der Temperatur und Level Grafikanzeigen. Die oberste Zeile zeigt gegenwärtig Temperatur und Level an. Die unterste Zeile zeigt den gewünschten Wert an.

The controller displays *bath temperature and level data* between the temperature and level graphic indicators. The top line displays the temperature and level that are currently achieved in the machine, and the bottom line displays the desired values.

2.1.6.4. **Programmschritte und Waschmitteleinspülung**—Wenn ein Programm startet, zeigt die Steuerung die ersten sechs Schritte in der *Liste der Programmschritte* in dem unteren linken Bereich des Bildschirms an. Falls das Programm mehr Schritte enthält, als auf einmal angezeigt werden können, scrollt die Liste zum Display mehr Schritte, wenn die vorherigen enden. Der laufende Schritt ist hervorgehoben.

Formula Steps and Chemical Injection—When a formula begins, the controller displays the first six steps in the *formula steps list* in the lower left area of the screen. If the program contains more steps than can be displayed at one time, the list scrolls to display more steps as the earlier ones end. The current step is highlighted.

Die Liste der programmierten *Waschmitteleinspülung* ersetzt die Programmschrittliste während jeder Einspülung, durch ein leuchtendes Kästchen auf dem Waschmittel, das eingespült wird.

The list of programmed *chemical injections* replaces the formula steps list during each injection, with a highlight box on the chemical that's currently injecting.

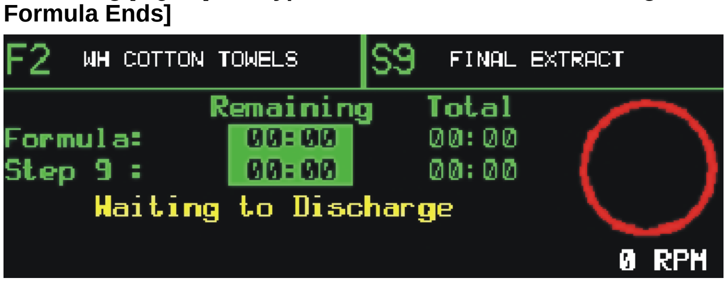
2.1.7. Entladen Sie die Maschine

Wenn das Programm endet, ertönt das Signal und die Maschine zeigt eine Nachricht an, daß sie bereit ist, entladen zu werden (siehe Abbildung 15). Entladen sie die Maschine wie unten dar gestellt.

Unload the Machine

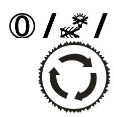
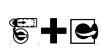
When the formula ends, the operator signal sounds and the machine displays a message that it is waiting to discharge (see Figure 15). Use a procedure similar to the one outlined below to unload the goods.

Abbildung [Figure] **15: Typische Nachricht, wenn ein Programm stoppt [Typical Message when Formula Ends]**



2.1.7.1. Für einige *Endcode*—Die Mark VI Steuerung erlaubt Ihnen, eine von vier möglichen Voraussetzungen für das Ende des Programms zu programmieren: *gestoppt*, *reversieren bei Waschgeschwindigkeit*, *drehen bei der Abflußgeschwindigkeit* oder *Auflockern*. Sie benutzen dieselbe Entladungsvorgehensweise für Programme, wenn Sie die ersten drei Handlungen benutzen. Bei der vierten Handlung haben Sie auch die Möglichkeit die Vorgehensweise zu benutzen, die in Abschnitt 2.1.7.2 beschrieben ist.

For any *End Code*—The Mark VI controller allows you to program one of four possible actions for the end of the formula: *stopped*, *reversing at wash speed*, *turning at drain speed*, or *tumbling*. You use the same unloading procedure for formulas using the first three actions. For the fourth action, you also have the option of using the procedure described in Section 2.1.7.2.

Anzeige oder Aktion [Display or Action]	Erklärung	Explanation
	Entfernen Sie die Energie vom Sicherheitsstromkreis, stopt das Signal und die Trommelbewegung. Diese Taste entriegelt auch die Tür, so dass Sie öffnen können.	Remove power from the 3-wire circuit, silence the operator signal, and stop any basket motion in progress. This button also unlocks the door so you can open it.
	Sie können auch die Energie vom Sicherheitsstromkreis entfernen, das Signal und die Trommelbewegung mit einer dieser Tasten stoppen. Wenn Sie eine dieser Tasten benutzen, müssen Sie die Tür mit [icon] entriegeln, bevor Sie sie öffnen können. Wenn Sie eine dieser Tasten benutzen, um ein Programm mit *Endcode 3* (siehe Abschnitt 2.1.7.2) zu stoppen, ist das Programm abgebrochen und kann nicht wiederaufgenommen werden.	You can also remove power from the 3-wire circuit, silence the operator signal, and stop any basket motion that was in progress with any of these buttons. However, if you use any of these buttons, you'll still need to unlock the door with [icon] before you can open it. If you use any of these buttons to stop a formula with *end code 3* (see Section 2.1.7.2), the formula is terminated and cannot be resumed.
	Öffnen Sie die Tür zum Entladen.	Open the door for unloading.

2.1.7.2. Für den Endcode 3 (*Auflockern*)—Endcode 3 (*Auflockern*) erlaubt Ihnen, die Tür zu öffnen und einige Wäschestücke zu entnehmen, dann schließen Sie die Tür, lassen erneut Auflockern um weitere Wäsche von der Trommel zu lösen.

For End Code 3 (*Tumbling*)—End code 3 (*Tumbling*) allows you to open the door and remove some of the goods, then close the door and resume tumbling to loosen more goods from the basket.

Anzeige oder Aktion [Display or Action]	Erklärung	Explanation
	Entfernen Sie die Energie vom Sicherheitsstromkreis, stopt das Signal und die Trommelbewegung. Diese Taste entriegelt auch die Tür, so dass Sie öffnen können.	Remove power from the 3-wire circuit, silence the operator signal, and stop any basket motion in progress. This button also unlocks the door so you can open it.

Wenn die Trommel aufhört sich zu drehen, öffnen Sie die Tür und entfernen Sie einige oder alle Wäscheteile aus der Maschine.

When the basket stops turning, open the door and remove some or all of the goods from the machine.

+	Öffnen Sie die Tür zum Entladen.	Open the door for unloading.

Entfernen Sie eine gewünschte Menge der Beladung.

Remove any desired portion of the load.

+	Schließen Sie die Tür.	Close the door.
①	Nimmt den Auflockerungsvorgang ohne Signal wieder auf. Es wird für weitere zwei Minuten aufgelockert, oder bis Sie drücken.	Resumes the tumbling action without the operator signal. Tumbling continues for another two minutes, or until you press .

— Ende BICWCO03 —

— End of BICWCO03 —

Kapitel 3 Signale und Fehler

Chapter 3 Signals and Errors

BICWCT04 (Published) Book specs- Dates: 20070515 / 20070515 / 20120113 Lang: GER01 Applic: CWS

3.1. Benutzereinschreiten

Sobald ein Programm startet, läuft die Maschine normalerweise automatisch. Die Maschine wird das Signal geben, wenn der Benutzer eine Entscheidung treffen oder manuell tätig werden muss. Die meisten allgemeinen Gründe, um die Sie sich bei der Maschine kümmern müssen sind Fehler. In manchen Fällen auch das manuelle Hinzufügen von Waschmitteln.

Operator Intervention

Once a formula starts, the machine usually runs automatically. The machine will sound the signal if an operator needs to make a decision or do something manually. The most common reasons you'll need to attend to the machine are errors, and to manually add chemicals in some cases.

3.1.1. Fehler mit Signal

Das Signal ertönt und die Signallampe leuchtet auf, falls ein Fehler die Maschine veranlasst zu stoppen. Diese Fehler unterbrechen normalerweise den Sicherheitsstromkreis und wurden hervorgerufen durch einen ausgelösten Vibrationsschalter oder eine Funktionsstörung des Inverters, der den Motor steuert. Abbildung 16 zeigt, wie ein vibration Schalterfehler auf dem Display erscheint.

Error with Operator Signal

The operator signal will sound and the beacon will flash if an error causes the machine to stop. These errors usually disable the three-wire circuit, and include a tripped vibration switch or a malfunction of the inverter that controls the motor. Figure 16 shows how a vibration switch error appears on the display.

Abbildung [Figure] **16: Typischer Fehler mit Signal [Typical Error with Operator Signal]**



Um das Programm wiederaufzunehmen, stoppen Sie das Signal und bringen Sie die Ursache des Fehlers wieder in Ordnung. Starten Sie dann das Programm von Neuem.

To resume the formula, silence the signal and correct the cause of the error. Then, restart the formula.

Anzeige oder Aktion [Display or Action]	Erklärung	Explanation
	Die "Abbruch"-taste auf dem Tastenfeld stoppt die Maschine, das Signallicht und den Summer. Sie müssen das Programm neu starten.	The Cancel key on the keypad stops the machine, silences the operator signal buzzer, and turns off the signal light. You'll have to restart the formula from the beginning.

Korrigieren Sie die Ursache des Fehlers. Wenn Sie nicht wissen, wie Sie das Problem lösen sollen, sehen Sie im Handbuch der Maschine nach.

Correct the cause of the error. If you don't know how to fix the problem, have someone check the reference manual for the machine.

Anzeige oder Aktion [Display or Action]	Erklärung	Explanation
①	Wenn Sie den Fehler korrigiert haben, setzt die Starttaste das Programm fort, wo es gestoppt hat. Falls der Vibrationsschalter den Fehler verursachte, geht die Maschine einen Verteilungsschritt durch, um die Wäsche in der Trommel zu verteilen, dann nimmt sie den unterbrochenen Schleuderschritt wieder auf.	If you've corrected the error, the Start button resumes the formula where it stopped. If the vibration switch caused the error, the machine goes through a distribution sequence to spread the goods around the basket, then resumes the interrupted extract step.

3.1.2. Signal für Waschmittel

Operator Signal for a Chemical

Diese Maschine kann ein automatisches Waschmittel Pumpsystem steuern, oder sie kann Ihnen signalisieren, daß Sie Waschmittel manuell hinzufügen müssen. Das Display (Abbildung 17) erscheint in jedem Fall, aber das Arbeitersignal ertönt

This machine can control an automatic chemical pump system, or it can signal you to add chemicals manually. The display (Figure 17) appears the same in either case, but the operator signal sounds only if the

nur, wenn das Signal programmiert ist.

signal is programmed.

Falls das Programm programmiert ist, ein Waschmittel Pumpsystem zu steuern, zeigt das Display die programmierte Waschmittelventilnummer, den Waschmittelnamen und die Einspülzeit an. Die Einspülzeit, am rechten Ende des Waschmitteldisplays, beginnt unmittelbar mit dem Countdown, wenn das Einspülen des Waschmittels beginnt.

If the formula is programmed to control a chemical pump system, the display shows the programmed chemical valve number, chemical name, and injection time. The injection time, shown at the right end of the chemical display, begins counting down immediately when the chemical injection begins.

Wenn das Programm programmiert ist, Ihnen zu signalisieren Waschmittel manuell hinzuzufügen, wird die Maschine automatisch arbeiten, bis Waschmittel hinzu gefügt werden muss. Dann stoppt die Maschine und wartet, bis Waschmittel hinzugegeben wurde. Das Display verändert sich, um Ihnen zu zeigen, welches Waschmittel Sie hinzufügen müssen. Aber der Einspülzeitzähler läuft nur, nachdem Sie das Signal aufheben.

If the formula is programmed to signal you to manually add chemicals, the machine will operate automatically until it needs a chemical, then the machine stops and waits for you to add the chemical and resume operation. The display changes to show you which chemical to add, but the injection time counter runs only after you cancel the operator signal.

Abbildung [Figure] **17: Waschmitteleinspülungsanzeige auf dem Betriebsdisplay [Chemical Injection View on Run Display]**



Anzeige oder Aktion [Display or Action]	**Erklärung**	**Explanation**
Nachdem Sie das Waschmittel hinzugefügt haben,		After you've added the chemical,
	Bricht das Signal ab und startet den Einspülzeitzähler.	cancels the operator signal and starts the injection time counter.

— Ende BICWCT04 —

— End of BICWCT04 —